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STRANGE ADVENTURES ON OTHER WORLDS
—THE UNIVERSE OF FUTURE CENTURIES

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ONE THOUSAND MILES BELOW

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by

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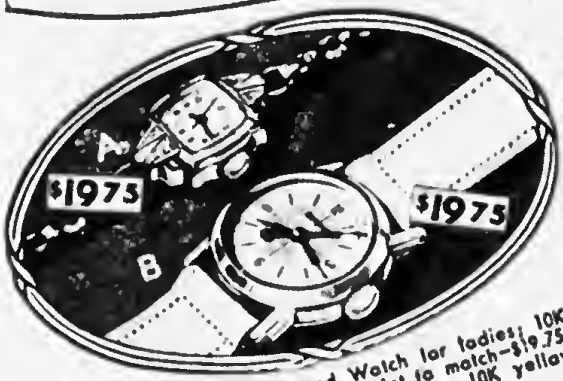
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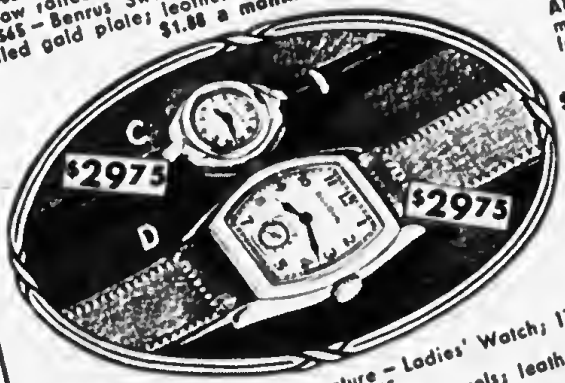
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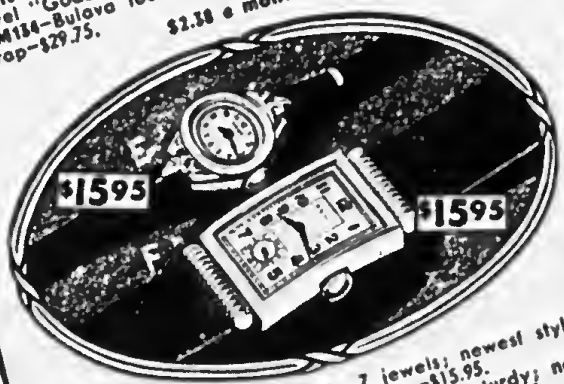


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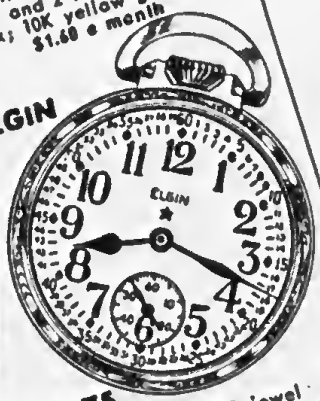
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One Thousand Miles Below

By EANDO BINDER

Humanity was doomed. Hour by hour the Martian horror was blasting Mankiud from the earth. Then up from the depths came a strange, pale army, marching to battle the sky-born Ray Armada.

SERGEANT EVAN PAIGE'S gray, brooding eyes stared reflectively at the paper in his hand, dated three days before, June 7, 1941. Under the official seal of Washington it read:

"EMERGENCY DRAFT. All men able to bear arms, ages 14 to 55, in defense of Earth against the invaders from Mars. Your country and your world need you. REPORT AT THE NEAREST RECRUITING OFFICE IMMEDIATELY."

"We'd better go, Sarge," said "Sparky" Donovan, small, wiry, his voice tense. "Before a draft commission comes for us. We never sidestepped a fight yet."

He walked to the window with a limp, and looked out into the night, shuddering. "Lord! Martians taking over Earth!"

Evan Paige tossed the well-thumbed paper on his workbench, and ran his strong hands through uncombed hair in nervous indecision.

"We should go. Yet what about Dr. Aronson?"

Sparky tossed his hands in the air eloquently.





A THRILLING NOVEL OF THREE WORLDS

Paige turned back to his radio. Its banks of power-tubes and its special airial outside were designed to send a beam underground. An electrical engineer, Paige had developed the set himself, with Sparky Donovan's help, to keep in touch with Aronson's exploring party. It had gone in a different direction from any other exploring party—down.

"No return signal from him for three months," Sparky said gloomily. "What do you expect? Somewhere under Earth's crust, his number rang up."

"But we're not sure," Paige said. His voice became musing. "Sparky, this is about the strangest situation facing us ever imagined. For the first time in history, an unsuspected underworld is being discovered. And for the first time in history, invasion has come from space. Two of the most astounding events in human chronicles happening at the same time! It's fantastic—as only truth can be. If we leave the radio now, we might be cutting off Aronson's last chance to tell the world—"

"Tell *what* world?" shrugged Sparky. "The Martians?"

"We'll try once more—"

Hopelessly, Paige sent his beam down, down. The last contact with Aronson had broken off at sixty miles below Earth's surface—abruptly. A cry of alarm, clipped off in the middle. Had Aronson and his three men met death, in that unknown depth? Still, perhaps only their portable radio-set had been damaged. On that slim hope, Paige had kept a hopeless vigil, hunched over the radio at all hours, signaling below.

Three months of nerve-wracking suspense. And in the meantime, the Martians had thundered down on Earth, like a bolt out of the blue. . . .

PAIGE stiffened, as a faint voice trickled from his speaker, behind a barrage of crackling static. He twisted his power dial to the upper limit.

"—ling Evan Paige! Aronson calling Evan Paige! Aronson calling—"

"It's him!" Sparky yelled wildly.

Paige barked into the microphone. "Paige answering! Good Lord, Dr. Aronson, it's about time! What happened? Where are you?"

"At the center of Earth!" The scientist's voice came back almost casually.

"*What!*" snapped Paige. "You're joking!"

Sparky had started, and then made a sad gesture with his finger tapping his forehead.

"Not at all." The scientist's voice, with a weird howl in it from underground interference, went on eagerly. "You remember that we found the linked caverns, at the back of Mammoth Cave. We followed them down, for ten days, as you know from our previous contact. At sixty miles down, we came to the heat-zone, where our troubles started. Molten lava flows there, in the caverns. The worst happened. Peters, Henderson and Bode slipped and fell while we ran. All three died!"

Paige and Sparky looked at each other, shocked.

Aronson's voice went on tersely, as if he had steeled himself against useless emotion. "I grabbed up the portable radio and kept running. Escaped the lava. But the set was damaged. I couldn't contact you. The rest is unbelievable."

"The *rest!*" Sparky muttered ironically.

Aronson resumed in a lower tone.

"I'll give it to you straight from the shoulder, Evan. There's a vast world down here. And people! Human beings, but total albinos. They've never seen the sun. Don't know our upper world exists, as we didn't know theirs did!"

"Completely daffy!" breathed Sparky. "Poor guy."

"People; human beings!" Paige recovered quickly. So many incredible things were happening, one more didn't matter. He grinned a little. "Even you didn't suspect that, Dr. Aronson."

"No. And they've kept me busy. I didn't have a chance to repair my set and contact you, Evan, till now. You see, there's a war down here, just like above. Earth is a honeycomb of natural caverns, as I theorized originally. The albino people inhabit them and the total population is as much as on Earth's surface. They have separate nations, and they are warring, with scientific weapons, just like in Europe when I left the surface."

Paige was about to break in, to destroy that illusion, but the scientist went on rap-

idly. His voice was eager, with the eagerness of his calling.

"But all that to the side, think what this means! A whole new underground world discovered! I'm going to try to escape and return to the surface. All my theories about a non-molten, honeycombed Earth are proven true. When I get above I'll wave the proof in front of certain learned colleagues who sneered at me—"

Paige did break in now, with a harsh, mirthless laugh. He spoke slowly, bitterly.

"The upper world isn't what you knew, Dr. Aronson. There isn't a European war any more. Two months ago the unbelievable happened. Beings from another world — from Mars — attacked Earth! They are utterly savage, ruthless, bent on wiping out humanity!"

How fantastic it sounded, in Paige's own ears!

"Now *you're* joking!" gasped Aronson.

"No joke," Paige returned grimly. "They're a scientific—*super*scientific race. They're blasting down cities steadily. In the first few weeks, their swift rocket ships blew most of our aircraft out of the sky. Even the great German fleet only lasted a month. After that, in Europe, it settled down to ground warfare. We put army after army against them. Soldiers lately bitter enemies fought side by side. The pride of French, Italian, Russian, German troops marched into their long-range kill-beams. They have ray-weapons. Our cannon can't even reach halfway to their projectors. Standing armies no longer exist. Now everyone marches to battle, even women. But it's hopeless. I think half of humanity in Europe, where the Martians first landed, is gone already. The end may be near for the human race. I can't begin to describe the stark horror of it!

"But, Dr. Aronson—"

A blazing thought had struck Paige. He went on hoarsely:

"Can we recruit those albino-people to help us? They're scientific, and know fighting. Will they help us? They must! They're human, you say—"

Paige stopped, a little dazed by the stupendous revelation of underground civilization, wondering if it could be true.

Aronson, in turn, still seemed stunned by the stupendous revelation of Martian invasion. He spoke finally, in a choking whisper.

"Possibly, Evan. But I wonder. You see, they don't believe in the existence of an upper world. And—"

Without warning, the radio suddenly went dead. But not at Aronson's end. Paige's set had blinked out, and with it all the electric lights. They heard dull thuds, from the center of town. Sparky was already limping to the window, and flung it wide. Aronson's laboratory-home was on the outskirts of Cincinnati.

They saw, in the heart of the city, the sinister iridescent beams that stabbed down from swift rocket ships.

"A bombing raid by the Martians!" Sparky growled. "They're starting in on America like Europe. Blasting cities railroads power-houses. Then the final clean-up on the battlefield—"

Cold rage iced through Evan Paige's veins. He felt his way back to the workbench in the dark and picked up the draft-paper.

"Yeah, that's it, Sarge!" snarled Sparky. "We'll join up now and fight those Martian snakes. I want to get in my lick at them."

Paige crumpled the paper in his hand suddenly. "Wait! What about those albino-people? A mysterious scientific race under Earth! If we could get their help—"

"Sarge, for Lord's sake!" exploded Sparky. "You don't *believe* that story? The old guy went crazy, somewhere down there. Why, it's like a fairy tale."

Paige gripped the little man's arm and squeezed. "Sparky, I wouldn't have believed about the Martians either, except that it happened."

"But, Sarge—"

A banging at the door interrupted them. Sparky groped his way down the hall to the front door, Paige following. Three men in uniform stood in the doorway; and played flashlight beams over them.

"Drafting commission," announced the head officer. "We're looking for slackers." After a significant pause, he said harshly, "Come along, you two."

Sparky looked at Paige, shrugged and made a step forward.

"Wait!" Paige suddenly made up his mind. "We didn't report for duty be-

cause—" He gave the details briefly. "So you see, we've got to get power somehow and re-contact Dr. Aronson. It's important, more important than going into the front line."

The officer glanced at his men cynically. "First time I heard *that* excuse! Even at a time like this, cowards lie for their skins. Afraid to fight, eh? Come along, slackers!"

"Afraid to fight!" Sparky's voice was an angry shriek. Paige pulled him back, as he made for the man with balled fists. Sparky growled. "We fought in Spain, and Finland. I got my limp in Rumania. And you think we're afraid to fight!"

Paige had a scar on his shoulder from Rumania, too. They had come back, with their wounds. While convalescing with Dr. Henry Aronson, his dead father's old friend, he and Sparky had become interested in and part of the underground project.

"All right, then come along," said the recruiting officer. "You're experienced soldiers."

Paige flung off the man's hand. "Don't you understand? What good are we, as two more soldiers? We've got to stay here and re-contact the underworld, I tell you!"

"Underworld!" snorted the officer, in utter disbelief. "The Martians have Europe licked. They set up a base in Georgia a week ago. Now they're raiding American cities. Don't you realize you've *got* to fight?"

His voice was suddenly dogged, harried. "Earth has to fight to the last man!"

"That's just it," Paige shot back. "There's no hope. But if we get help from the und—"

"Take your choice!" rasped the officer, whipping out a pistol. "My orders are to shoot any slackers who resist!"

Paige and Sparky went. Paige couldn't blame the officer for not believing the story. Even Sparky didn't. And Paige himself wondered. Maybe there wasn't any underground world. Maybe Aronson was crazy mad, trapped in some corner of the strange subterranean world.

II

A WEEK later, Paige's regiment took the full brunt of a Martian attack, somewhere in South Carolina. It was all a hellish confusion.

Overhead, swift Martian rocket craft outmaneuvered American pursuit ships and shot them down steadily. Earth artillery pounded briefly, and then the guns exploded as creeping neutron-rays touched off shells prematurely.

Finally, across no-man's-land came a wave of Martians, with long-range killbeams. On all sides of Paige and Sparky soldiers threw up their hands with choked cries and fell as corpses, as neutron-beams drilled a one-inch hole through lungs and spine.

The regiment stood its ground, under orders. Men fought grimly, with a doomed look in their eyes. And so it had gone for two months, with the Earth forces steadily being decimated. The Martians, an older race, were maddeningly scientific, equipped with superweapons and superships. Earth's defenses were toylike in comparison. Complete extermination of the human race seemed the enemy's aim, so that they might take over the new world for their own.

"It's no use, Sparky!" groaned Paige, resting his automatic gun for a moment on the knoll behind which they crouched. His voice was filled with the hollow bitterness that he and all humans felt. "Earth is licked. Extinction faces humanity. There isn't a chance in the world of winning out against the Martians. It's just a matter of months—"

"We're not licked till the last man goes," Sparky retorted grimly.

Paige looked around. In back of the thin line of doomed fighters the way was clear. Paige suddenly clutched the little man's arm.

"Come on, Sparky." His voice was dry, defeated. "We're deserting."

"*Deserting!*" Sparky repeated the word with a good soldier's utter loathing. "To save our skins? Almighty, Sarge—not you—"

"Not to save our skins," Paige said savagely. "To take the one chance left to save Earth!"

"You mean that funny-sounding underworld business? Sarge now you're cracked, too."

But Paige was already crawling back, away from the line of fighters. Sparky

looked up in the war-torn sky, as though for guidance, then followed.

"Sarge, I'll stick with you. That makes me a deserter, a skunk and a maniac. Funny, what a man will do at times."

They crept back, through bushes and grass, deserting the regiment that was being cut down to the last man. They hid in a woods till night, and then sneaked through the secondary line hastily digging into trenches. In back of its constantly melting front line, the Earth forces were setting up further lines. A hopeless, bitter fight to try and stem the invincible invaders.

They were shot at several times by sentries, but escaped.

"Shot at by our own people!" Sparky sobbed brokenly. "We'll die yet, with bullets in our backs. They'll kick our bodies and spit at them."

Paige winced, but led the way adamantly. To die without honor was horrible. But to die without hope was worse.

The desertion was easier than they might have thought. The country was disorganized, under the encroaching menace. They stole from farmer's vegetable patches for food, avoiding cities. They slept in the day, among trees, and moved at night. In a week they had trudged through Tennessee, up into Kentucky.

"Sarge!" Sparky stopped stock still suddenly. "We're really fools. What can we do when we get back to the lab in Cincinnati? There's no electrical power for our radio!"

"We're not going there," Paige returned quietly. "We're going to Mammoth Cave. We're going down in the underworld ourselves!"

THEY entered the yawning portals of mighty Mammoth Cave.

Tour-parties had long been suspended, with the coming of the Martians. It was deserted. A forest of stalagmites loomed in the dimness ahead.

"People have gone in here and never come out," shivered Sparky. "They went in circles. How do we find the way?"

"Aronson's markings," reminded Paige, pointing to a stalagmite on which had plainly been scratched an arrow with a large "A" beneath it.

They followed the arrows. The cave-mouth receded, became lost. Utter tomb-like silence surrounded them. Their footfalls sounded like the tread of mammoths. At times they were startled by bats skittering through the air. High overhead, from the vaulted ceiling of rock, hung gigantic stalactites that seemed poised for an instant drop.

There was fantastic beauty in it. Light from the hidden cave-mouth reflected through the gloom in stabbing beams, sparkling from a thousand crystalline facets. In the dim distance, great arched corridors spread in all directions, like the halls of a cyclopean cathedral. Strange rock formations loomed magnificently, the wildly artistic sculpturings of a wonderland of nature.

The arrows pointed on and on.

"How did Dr. Aronson know the way?" Sparky chattered.

"By his new geologic theory about the crust and all Earth," Paige informed. "That Mammoth Cave, at some point, must connect to lower caverns."

Abruptly a riven gash ran before them across the cave floor. An arrow at the edge pointed down. They clambered down thirty feet. A water-worn passage a hundred yards beyond led out—to where?

At one point, they had to crawl through a natural tunnel so narrow that Paige's broad shoulders almost stuck. The passage widened and soon they stood upright, looking out upon a breathless sight.

On a lower level than Mammoth Cave, and connected to it only by that narrow passage, was a cavern yet more gigantic. Even a small lake lay gemlike in the center, glowing with phosphorescent algae. And beyond stretched corridors, twining through the rock, going on and on, and down and down.

"The beginning of the underworld!" Paige whispered. "No wonder Dr. Aronson was so excited when he reported this to us."

Sparky grunted. "And no wonder he went nuts. Sarge, look. This is all crazy. There can't be any people down here, no matter how far it goes! Let's go back, Sarge, and be sensible."

For a moment Paige hesitated. Was he being a fool? Could there be a buried race down here? Or was it all hallucination, in a man driven insane? Should he

go on this wild goose chase? Or go back to duty? And death!

What choice was there? They would go on. Sparky accepted the decision with a resigned shrug.

THEY scrabbled down the slopes, passed the lake, and followed the arrows into the passage beyond. In the following days they hunted and shot fat cave rats, salamanders and jackdaws for food, toasting them over fires of dried moss. The signs of life increased, rather than diminished, as they went on. They were all albino forms, pigmentless, living without sun.

They plodded uncountable miles, in the underground maze, unmapped by the upper world. It became like a dream to Paige. He sensed they were going down, ever down, as much as forward. It was as if gravity lured them down into its lair, where there was a choice of grades. Phosphorescent plants and radio-active deposits in the walls lighted the way, dimly.

The upper world seemed remote. Even the terrible struggle going on up there faded from their thoughts, as though it had happened centuries ago.

"A new world!" Paige murmured more than once, his voice echoing hollowly through the caverns.

"Maybe so, Sarge," Sparky admitted. "But we won't find any people. I still don't believe that."

Temperature had risen, gradually, steadily. Now, at the end of ten days, it was abominably hot. They peeled their coats, ripped their collars open. They skirted pools of bubbling, steaming water. The soles of their boots became blackened and scorched. Waves of blistering heat radiated from the walls about them. At times they saw lava-flows, like creeping amoeba, reach up from cracks and holes.

"The heat-zone Aronson mentioned," Paige said thoughtfully. "Watch your step. Here's where his three men lost their lives!"

It became worse. Small rivers of lava flowed sluggishly by. Curtains of steam half blinded them. The air was furnace hot. Stumbling, sweat-soaked, throats seared dry, they were barely able to find the arrows that led on and on into the virtual inferno.

"Can't go on!" panted Sparky, his limp dragging at his speed. "Sarge, we can't go on. We'll burn alive!"

But Paige grabbed Sparky's arm and staggered on grimly. If Dr. Aronson had won through, so could they. Sparky cursed lividly, but said no more.

Suddenly he screamed: "Look! That lava-flow—it's coming straight for us!"

A portion of the wall had broken open to let a flood of smoking molten rock pour out over the passage they were treading. Croaking hoarsely with fear, Sparky tried to run back. But the lava had cut off retreat.

Paige stood still with hammering pulses, trying to figure out an escape. The damnable vapors cut off vision. A lake of lava began crowding them toward the burning-hot walls. Wasn't there any way out?

"We'll die here like trapped rats!" Sparky shouted. Then he laughed wildly. "We left the Martians, for a death like this!"

Echoes of the laughter mocked them, ringing back from the cavern walls.

SUDDENLY Paige lifted his bleary eyes. One sound hadn't been an echo. It had sounded like a shout—a human shout!

He peered into the steamy gloom around them. Again the shout, and two figures racing toward them. Humanlike figures! The foremost was a female form, long ash-white hair streaming back. Her skin, too, was alabaster white, and her eyes pink. She was an albino. She was like a white angel darting through the steam curtain.

"I've gone daffy, like Aronson," moaned Sparky. "I think I'm seeing angels."

The two figures came up. The white girl-creature grasped Paige's arm and forced him to stumble through the blinding vapors. Her male counterpart hustled Sparky along. They could see.

Paige's bloodshot eyes saw the sudden upwelling of hot, molten rock, sweeping toward them like a tide, threatening to cut them off. They made it to a side passage with just seconds to spare. It was like an infernally detailed nightmare.

Paige felt coolness touch his fevered brow in the new corridor. The white angel half dragged him along another hundred yards, then stopped. The white male let

Sparky go, as he leaned against a wall. In dim radioactive glow, the four people looked at each other.

Sparky's eyes were bulging. He reached out to touch his rescuer.

"He's real!" Sparky gasped. "My Lord, Sarge, they're real!"

"Of course," panted Paige. "These are the albino people."

"Then Aronson wasn't cracked—" Sparky began.

They both started as the albino girl spoke quickly. "Aronson," she repeated in a lilting tone nodding her head. "Dr. Aronson—" The rest was a flood of her own tongue.

"You know Dr. Aronson?" Paige queried. "Do you know any of our language?"

The girl seemed puzzled, her eyes on him. Suddenly she smiled, and Paige smiled back. Somehow, the ache of his muscles, the burning of his skin seemed all worth while to meet this marble-white girl of another world.

Sparky was shaking his arm. "Don't you hear me? I said—oh, never mind." He grinned suddenly. "Quite a nice number, eh? But her boy-friend's kind of jealous."

Paige started and looked around. The albino man was frowning. He gestured for them to move on.

The way wound erratically down. At times it was rough going. The girl helped Paige's staggering legs, while the man helped Sparky. Sure-footed as goats, the albino-people never faltered.

A few minutes later they were standing at the lip of a cavern more gargantuan than any Paige and Sparky had yet seen. They gasped. There was a city in it.

Dwellings had been hollowed out of the rock walls, with stone steps leading to the entrances. The center space, surrounding a mirror-like lake, was a checkerboard of tilled fields bearing albino-crops, tended by albino people. Sounds arose, the welcome noises of a busy, civilized community, sweet to their ears after the ghastly echoing silences of the cave above. The farther wall was pockmarked with tunnels; man-made passages from which came the roar of machinery.

It was a fairy-like scene, weirdly lovely in a radioactive glow shed by huge globe-lamps, again man-made, hanging in the high vaulted ceiling. Paige thrilled. Civilization after all, in this sunless world, and albino people identical to humans except for lack of skin pigment.

"Well," he told Sparky, "Dr. Aronson was right."

Sparky for once had nothing to say.

They were led to one of the cliff-dwellings, overlooking the community. Utterly worn out by their ordeal through the fire-zone, they thankfully climbed into hammocks, and slept the sleep of the dead-weary.

III

PAIGE awoke, feeling wonderfully rested. He swung his eyes to look through an open window, down at the albino people's city.

And there were more cities. Two billion human souls, if Aronson were right, living like moles. A hustling, teeming world here within Earth's core! As many humans living without the sun as under its rays! Suddenly the whole thing seemed fantastic, incredible.

But here it was!

And then, Paige felt a queer satisfaction stealing through him. The Martians up above were only killing off one-half of the human race. They didn't know either of this mysterious underworld.

In a way, it was almost a joke on those heartless monsters from another planet. Joke? It would be more than a joke, soon.

"You awake, Sarge?" came Sparky's voice. "I've been lying here wondering if it's all true."

"It's an amazing riddle, Sparky. Civilization below Earth's surface. Wonder if Dr. Aronson knows all the answers? We'll have to get to him, somehow, at the center of Earth."

"Center of Earth!" scoffed Sparky. "I won't believe that yet."

"Still skeptical?" Paige laughed. He sobered. "After what we've seen, we can't doubt anything. And thank Heaven for it. Don't forget what we're here for, Sparky—to enlist the albino people in the fight against the Martians. They—"

He stopped, as the man and girl who had rescued them appeared, smiling a greeting.

Paige took a longer look at them. He

stared at the girl till her almost colorless eyes dropped. A vivid scarlet blush touched her marble-white skin. Cosmetics were known to these people, for her eyebrows and eyelashes were tinged with black paint, and her cheeks and lips with a red tint, to relieve otherwise uniform white features. She looked very human.

Sparky was more practical. "We're hungry," he said. "Very, very hungry."

The two stared in perplexity till Sparky pantomimed eating, at which the girl nodded quickly, left, and returned with steaming bowls of gruel-like food. Paige and Sparky gulped it down as fast as they could, finding it enigmatically tasty. New strength flowed through their bodies, wasted by the trek through the endless caverns and the hell-hot fire zone.

Paige gave a sigh of satisfaction, and introduced themselves, wishing he could launch a flood of questions that plagued him.

"Evan Paige! Sparky Donovan!" repeated the girl, nodding, apparently with a quick ear for new words. "Names—him Tal Rithor. Me—Reena Meloth." Her hand touched Paige's momentarily.

Paige noticed again the quick frown in Tal Rithor's face, and grinned a little. "Don't worry, Tal," he said. "I'm not your rival."

"Yet!" Sparky added under his breath. Aloud he exclaimed, "But, Sarge, she used a couple of English words! She must have learned some from Aronson."

Paige nodded, wondering how much English they knew. "How far underground are we?" he asked.

"No understand," returned the girl blankly, after a moment of thought.

"Where are you people from?" essayed Paige, speaking slowly and distinctly.

"No understand."

Paige checked the turmoil of further questions on his lips. Which didn't they understand—his words or the ideas behind them?

The girl leaned forward. "We learn lill your words. From Dr. Aronson."

"Where is he?" queried Paige. "At the center of Earth?" That thought, in spite of the astounding confirmation of the subterranean world, still seemed stretching a point.

The girl shook her head without a shred of comprehension. "Him Center. Sick place. Him there."

It might mean anything. "Can we go to him?" Paige asked patiently.

"No," Reena Meloth emphasized the flat negative with a shake of her ash-blonde head, Tal Rithor following suit.

"Why?" demanded Paige.

The albino man spoke this time. "You fighters! You fight!"

"I don't like his tone," Sparky asserted in a low aside. He had always formed quick likes and dislikes. "I wouldn't trust him."

Paige nudged his friend quiet but didn't like the albino man's tone either. He took a breath. Now that he had found out they vaguely understood English, he prepared to launch into the most important aspect of their mission.

"Listen," he said slowly. "We must see Dr. Aronson. We have come down from the upper world for a purpose—a grave purpose. An enemy is wiping out the human race up there. We need help. Do you understand?"

"No." Both shook their heads in absolute lack of comprehension. Again Paige had the nagging thought that it was his meaning they failed to grasp.

Sparky was shaking his head, too. "We'll never get anywhere this way, Sarge. We'll have to teach them our language better, or learn theirs."

Paige grunted. "We'll learn theirs. I hate to take the time, with Earth being blasted day by day, but we'll have to." He turned to the girl. "Wil you teach us your language?"

She nodded brighty. This she seemed to understand. "Start now," she said. She spoke to Tal Rithor rapidly in their flowing speech. He nodded, rather reluctantly, shot a glance at Paige, and left.

"I still don't like him," Sparky murmured.

"Forget it!" Paige snapped. "It's trivial. We're here to learn the language first, contact Aronson, and get help for Earth!"

In his mind, he pictured what was happening up in the world they had left. New York, London, Paris, Berlin—falling before giant forces spawned in Martian minds. Humanity facing extinction.

The girl began pointing to objects, giving their names in her strange tongue.

IN a week, they knew more than a smattering of the albino people's speech. With a flair for language Paige had learned fast. He was amazed himself, but realized that a demon drove him, sharpened his mind.

Reena spent all waking hours with them. She told them much of the strange new world they had dropped into, as they learned words. Dorthia it was called by the inhabitants. Underworld, Paige and Sparky called it between themselves. Millions of human beings lived down here, as easily as up above.

Reena conducted them through the cavern-city. Industry was well developed. The albino people had metal alloys, and inexhaustible supplies of ore all about them. They had electricity, fast transportation, and were superb structural engineers. They had, apparently through a long history, hollowed out many artificial caverns, and so extended their range of living.

Later, watching a new tunnel being extended, Paige became thoughtful. A giant machine on rollers, with a spout something like a cannon, slowly edged forward, guided by workmen. An invisible force shot from it peeling the wall down steadily, converting rock into compressed heavy matter that was carted away. It was something Earth science knew nothing of.

"Reena," Paige asked, using the newfound language haltingly, "what force does that machine use?"

"It is atom-breaking," she responded. "Energy springs forth when atoms are broken down."

"Atomic-energy! Or at least a form of it!" Paige gasped eagerly. "Sparky, do you know what it means?"

"A weapon for our forces, against the Martians?" Sparky guessed quickly.

Paige whirled on Rena, his eyes blazing.

"Reena," he said in her tongue, "I think I can explain now, in your words. We're from the upper world. It is being destroyed. Martians, beings from another planet, have attacked—"

He stopped, at her utterly blank stare. "Upper world?" she repeated. "There is no upper world."

Paige and Sparky looked at each other. "But there is," Paige returned patiently. "You saw us come down from what you people call the Fire Zone. Dr. Aronson, too."

SHE frowned thoughtfully. "Yes. And you are strangely dark-skinned. Dr. Aronson stumbled through the Fire Zone, which is strange. Tal and I were there, by chance, as we liked to look upon the fires. When you came through, we were there because Tal almost believed there might be a world above the terrible Fire Zone."

"Almost!" reiterated Paige. "You don't believe—"

"We believe," said the girl, "that you come from an unexplored cave-city beyond the Fire Zone."

"Not cave-city." Paige wondered how to express himself, still unhandy with their language. "My world is beyond the caves. It is open, wide, free. It is under the 'sky'"—he was forced to use the English word and an all-embracing gesture—"and there are 'stars' and the 'moon' and 'winds' and 'rain' and 'sunshine.'"

He stopped, caught by a sudden sigh.

"You're homesick, Sarge," Sparky said bluntly. There was also a longing look in his eye.

Reena looked still more perplexed. "I do not understand," she murmured. Then she laughed rouguishly. "Whatever strange cave you came from, your people are gifted with much imagination!"

"Imagination, she calls it!" Sparky snorted.

Paige fumed at the girl's hard-headed attitude, like an ant denying the existence of anything beyond his ant-heap.

Reena had become grave suddenly.

"Perhaps you and your friend had better return to your cave-city beyond the Fire Zone," she said with averted eyes. "We are at war here. You will be conscripted. Tal is commander of this city's military force. He is rather hard at times. He needs every man."

"War!" Paige was reminded again of the holocaust above ground. How could he forget it, even for an instant? "Reena, there is war in my world. We need help—"

"We do not go to your cave asking for help," she returned, sharply.

"But this is different. Monsters from another world are attacking Earth—"

Again her uncomprehending stare of puzzled disbelief.

"No use, Sarge," muttered Sparky in English. "Can't you see it's like talking Greek?"

Paige grasped the girl's arm. "Dr. Aronson—where is he?"

"He is down in the Center. Tal sent him there, to help care for the wounded."

"Can he come to us?"

"No."

"Then we'll go to him. Tell us how."

The ash-blonde head shook a negative. "You cannot go. Tal will keep you here, to fight—unless you return to your cave."

"Can I send a message to Dr. Aronson?" Paige asked desperately.

"Tal will not allow it."

Sparky growled: "What is this Tal, a dictator?"

They had returned to their cliff-dwelling. Tal was waiting for them, glancing from the girl to Paige scowlingly. Paige ignored that and repeated his request to see Dr. Aronson.

"No," Tal Rithor said flatly. "Only the wounded go to the Center. This is wartime. You are able-bodied men. I need you in defense of the city."

Paige ground his teeth. Their story disbelieved. No spark of concern, or even comprehension, for the tale they brought. Impressed into military service! Paige decided on a show-down. The pistol that he still had leaped into his hand from its holster.

But Tal had been on guard. A hand-weapon of his own came out just as swiftly. The eyes of the two men locked. Reena fell back with a gasp. Sparky poised on the balls of his feet, ready for anything.

"Don't shoot, or I will," Tal barked. "If you kill me, my men will get you. You can't escape!"

Paige relaxed and holstered his gun. It had been a mad thing to do, antagonizing Tal still more.

"But, Tal," he pleaded, "if you'll only listen carefully to my story—"

"This is war," the albino man returned coldly. "We cannot help in your war, while we have our own. You are free to go back to your own cave. If you stay, you fight with us."

"Crazy world," Sparky grunted. "Or is it? Before the Martians came, up above, the nations of Europe—"

A noise interrupted a—brazen clang that reverberated through the city-cavern deafeningly. Tal and Reena stood for a moment frozenly. Then the albino man darted away with a startled shout.

"Attack!" breathed Reena. "By our enemies. King Luth of Uldorn and his people are trying to gain control of this section of caverns!"

IV

PAIGE watched. It seemed to be a skirmish, rather than battle. From the remotest corridors pressed the attackers, a few thousand albino men, firing long rifle-like weapons. The city's defense force retaliated from concealed ledges. Paige wondered what their weapons did. His answer came abruptly.

There was a queer crunching sound, as though millions of crystals were being squeezed together, and then a six-inch portion of the stone window frame chipped away, next to his elbow. But the piece that dropped was only one inch in size!

"Stand back!" warned Reena. "Another stray shot might hit you. If you do not know our weapons, they fire a bolt that causes atoms to collapse together, like the tunnel-digging machines."

"Atomic-power weapons!" Paige said excitedly.

"If we had them up above, we'd lick the Martians!" cried Sparky.

"We've got to get out of Tal's hands," Paige groaned. "Find Aronson and figure out how to bring help to the surface."

Reena's hand was on his arm, her lovely pale eyes on his. "It is important for you to see your Dr. Aronson?"

Paige grasped her shoulders. "Reena, if I could only tell you how important!"

She looked at him for another moment, then spoke tensely.

"This is just a skirmish. I think the Uldorn forces only want to find out gun emplacements. They are planning for a bigger attack, in the future. Go down among our forces and fight!"

Paige was confused. Was she using an age-old appeal simply to force him to help her side? "But that's just what I don't want to do!" he exploded. "I can't

fight in your crazy war while up above—"

His voice ground to a stop. Did she think him a coward?

She was looking at him strangely. "The wounded go to the Center," she said quietly.

"I get it!" yelled Sparky. "It's our one way to get to Aronson. Sarge, she's telling us how."

Paige was already running for the door. He glanced back at her, but she had averted her eyes.

On the cavern-city's floor level, the two men came up behind the Dorthian lines. Tal Rithor, directing operations, turned in surprise.

"We will fight," Paige said shortly.

"Good. Our weapons are easy to operate."

"What's wrong with this?" Paige pulled his pistol from its holster again.

Tal glanced at it and laughed. "Bullets? We stopped using such guns a hundred years ago. Here," he snapped an order and an aide brought two of their rifles. "Use these. Get up in the front line and pick off as many of the enemy as you can. This is little more than a skirmish. The experience will be good for you. There will be heavier attacks in the future."

He turned away.

PAIGE and Sparky found themselves behind a stone bulwark, a moment later, with grooves in which to rest the rifles. With a swift glance over the weapon, Paige found the trigger-lever at the side that would release blasts of atom-compressing force. He sighted along the barrel at a dim figure in the enemy uniform of blue, creeping forward in the corridor from which the attackers had come.

The weapon had no kick. There was just a faint hum as he pulled the trigger. But in the "V" of the sights, three hundred yards away, the blue-clad Uldornian threw up his hands and toppled backward.

Paige closed his eyes for a moment, shuddering. The man's head had completely vanished, reduced instantaneously to crushed matter.

This was a wonderful—or frightful—weapon! Even the Martians, with their rustling kill-beams of neutrons, had no such power of death in so small a weapon.

Paige shuddered, too, because he had killed a man against whom he had no slightest enmity or cause. Yet it had been necessary, to find out the true potentiality of the underworld weapon.

"What a gun!" Sparky was crowing beside him, bending to his sights for the second time.

Paige pulled him away. "No more, Sparky. Now we know this is the weapon we need for upper Earth. No sense killing albino men."

"But, Sarge!" Sparky was puzzled. "They'll notice we're faking. And we have to get wounded—or killed!" He twisted his lips in a wry grimace. "On second thought, this is kind of wacky—shopping for a wound. A crazy suggestion by a woman, and we go prancing off—"

"She was a step ahead of you," Paige cut him off. "Sparky, we've got to get to that Center, where Aronson is. There's only one way, with a wound. Even if we—" He paused.

"—have to do it ourselves!" gasped Sparky, in dawning comprehension. "But, Sarge, that's worse than our deserting was."

He stopped at the grim, implacable look in Paige's eye. Events seemed to force them to do these incredible things, to fulfil their strange mission.

A moment later it was done, as they crouched low behind the stone parapet. The other albino soldiers were too busy to look. Paige winced as Sparky carefully sent a bullet through the fleshy part of his left shoulder. Then Page calmly aimed his pistol for a shot through Spark's right shoulder. They did not trust using the unfamiliar blast-rifles. Wounds were alike.

They crawled back from the firing line, holding their wounds as though two shots from the enemy had grazed their shoulders.

"Shooting ourselves!" Spark mumbled, outraged. "What in the name of Lucifer will we try next?"

"Anything!" Paige shot back. "Anything at all to bring help to upper Earth."

First-aid women, in the safety zone, quickly ripped their shoulders free and dabbed on some antiseptic, and then taped the wounds. Tal suddenly appeared.

"Wounded already?" he grinned. "You

will go to the Center immediately, for recuperation."

"Figure out why *he* wanted you fighting right away," whispered Sparky. "He's glad you're going away from Reena!"

Paige was also glad, for a different reason. To the Center meant finding Aronson, and getting somewhere in his baffling quest.

"You were a little careless," Tal went on. "It's a good lesson. When you come back, recovered, you'll be good fighters. I'll need you." He turned away on his heel.

The skirmish was over abruptly. The attackers left as suddenly as they had come leaving a hundred dead. The hissing of weapons died away.

Paige and Sparky found themselves bundled, along with other wounded, before a structure that vaguely resembled a subway kiosk. Reena was there, along with other albino women who had come to see the wounded off.

She extended her hand, relief in her face. "I was afraid I might have sent you to—worse. Now you will find your Dr. Aronson. Perhaps we will meet again."

She said it as if they were strange beings who might at any moment vanish as suddenly as they had appeared in the albino world.

Paige stared. He was struck again by her snow-white beauty, under the radium-glow lamps. How would she look in the bright sunshine of Earth? Probably, he thought, like a rare white orchid rescued from gloomy jungle.

Paige was queerly disturbed. Was she human, with her exotic whiteness? At times this seemed like a dream, humans sixty miles below the foundations of Earth cities. And the albino people looked so cold, statuesque, unreal. Impulsively, he bent to kiss her. Other soldiers were kissing women farewell. His doubts dispelled. Her lips were warm, her body supple. This was a girl as human as any above.

Sparky turned away, with a soft whistle.

She yielded only for a moment, then broke away. A spark of fury flashed from her rose-irised eyes. "How dare you?" she said coldly. "Tal Rithor is my future husband."

"Sorry," mumbled Paige, cursing himself for a fool.

The girl, still furious, whirled away and vanished in the crowd.

"You know, Sarge," Sparky said softly, "when they get angry like that, it means something!"

Paige straightened. "Never mind about that. The important thing is meeting Aronson."

INSIDE the kiosk, they were hustled into one of a long train of little cars, resting on a smooth runway that further on dipped down into rock-bound tunnel. They lay flat in the car, made for that position. An attendant slid tight a cover and they were sealed in.

"I feel nervous," vouched Sparky. "Like my first subway ride as a kid. Wonder where this hospital Center is?"

"At the center of Earth, four thousand miles down."

"Naw," snorted Sparky. "It's somewhere near. Why would they send wounded men four thousand miles? Its name happens to be the Center, where Doc Aronson is. He was just fooled into thinking it meant Center of Earth."

Outside, partly muffled, they heard a warning signal. Then motion. As if brakes had been released, the train rattled forward on the runway, smoothly gathering speed.

Paige felt the gradual dip downward, into the tunnel. When he felt pressure on his feet, he knew they were vertical. He was in reality standing up now—not lying down—in a car that dropped straight down! Yet the pressure on his feet was light. Was the car simply a free-falling body, being yanked down by force of gravity?

A low whine sounded from outside and within minutes the train rumbled along with the sound of a streamlined express roaring at top speed.

Paige felt pressure against his eardrums that made him swallow. Counting mentally, he timed the period of acceleration, till the sensation of drop became uniform. Paige grunted as though his breath had been knocked out, when he figured it out.

"Wonder how fast we're going?" yelled Sparky above the whine.

"About a thousand miles an hour!" Paige yelled back.

Paige wanted to think over the amazing adventure he had dropped into, from the upper world. But now lassitude stole over him. He felt light-headed. In his weakened condition, from loss of blood, his mind whirled into blankness. Sparky was quiet beside him.

PAIGE awoke with a start. An attendant was shaking his good shoulder, urging him up. Their car was open, and the train had come to a stop.

"Are you all right?"

Paige nodded dazedly, feeling queer, and started to rise on his elbows. The attendant's hand restrained him for a moment.

"Don't make any sudden moves," he warned. "Use your arms to get out." It was routine instruction, given passengers in peace-time, no doubt, as well as when a train-load of wounded came.

Paige lifted himself over the edge of the car with his arm muscles—an impossible acrobatic feat! That is, impossible against gravity. He further astonished himself by remaining suspended in the air, his body horizontal, once he was out. He stayed that way, feeling paralyzed, helpless, out of his element.

With no amusement, the attendant reached up and pulled him down. "Keep your hands on the guide-rail!"

Sparky bounced out like a rubber ball, and had to be pulled down, too, floundering and kicking his legs in the air. When he had his hands safely on the guide-rail, he was panting.

"I feel like a fish out of water," he growled. "What's wrong, Sarge? I feel like a feather!"

"There's no gravity here," Paige returned. "There's only one spot on or in Earth that would have no force of gravity, because of equal pull in all directions." He looked at Sparky half maliciously. "The center of Earth."

Sparky gasped. "You mean we're really there? Four thousand miles down!"

Paige sympathized with the little man's utter dumbfoundment. Fantastic, every bit of this.

They followed a stream of wounded men from the train. Those with serious wounds, unable to move by themselves, were towed through the air like balloons. Paige found walking like the strut of a drum-major, lowering each foot firmly to press forward. He slid one hand along the guide-rail, thankful for its assistance. The path they followed was a metal ramp that seemed to slant upward. And yet, was it upward? Paigne didn't know.

Emerging into a large cavern, the ramp stretched without support straight on, like a bridge through empty space.

"You won't fall," Paige chuckled at Sparky's gasp. "There's no *down* here."

Paige looked ahead to where the miraculously hanging bridge led. It was a cavern so stupendously huge that the further walls were fused in distant gloom that looked like starless space. A hollow here, in Earth's core. In the center was a gigantic metal ball, also suspended in the gravityless cavern, moored to the walls by thin wires. Lights streamed from countless rows of apertures.

"A hanging hospital!" marveled Sparky.

"A hanging *city!*" corrected Paige, realizing its true size.

V

THEY entered a large portal. An attendant began to take down some sort of record, asking questions, when another figure strode forward.

"Evan Paige!"

Paige looked around into the face of Dr. Aronson, familiar yet different, from months before. The sunless environment had obviously faded his skin, beard and hair. But otherwise, the short, stocky explorer-scientist seemed in good health.

"Dr. Aronson!" Paige wrung his hand.

"Hi, Doc!" greeted Sparky. "Had to play several tricks to get down here, but here we are."

"Good to see you both!" returned the scientist eagerly. "It's like meeting fellow Americans in some foreign port. I knew you were coming—Reena sent a message, by wire. It's still a surprise, though. After our radio contact clipped off so suddenly, a month ago, I didn't know what had happened. I thought perhaps the—the Martians—"

He stopped. He had said the word queerly. He looked at Paige with a

strange, half-skeptical glance, questioningly.

Paige nodded. "It's true," he said quietly. "Too bitterly true."

"Then it wasn't a horrible dream I'd had." The scientist's shoulders sagged. "I'd been hoping it was that." Shaking his head, he turned, beckoning. "I'll take you to your room."

It was down a hall, a small cubicle with two hanging hammocks. Paige looked around for a chair, finding none, then realized standing was no effort at all, in the first place.

Paige told their story briefly, then looked quizzically at the scientist for his.

"First of all," Aronson began, "this floating city is more or less of a huge sanitarium. In war-time, all the Dorthian wounded are brought here, to recover more quickly, and so return to battle sooner."

A sanitarium at the center of the Earth! Paige thought of how skeptical, how utterly disbelieving the upper world would be, if told. He shrugged that away. Before 1492, they hadn't even known of the other half of that upper world. It wasn't so strange that two worlds could lie almost side by side, without mutual discovery.

"I came down here to prove my geologic theories," resumed the scientist. "I found the albino people. Or they found me, Reena and Tal. Neither believed I had come from an upper world, only another 'cave.' When Tal found out I was something of an M.D., as well as explorer, he impressed me into service here. War-time measures. In spare moments I managed to repair my set and signal you. Then the news—"

His voice was suddenly haggard. "You're amazed at finding life and civilization below here. I'm amazed that up above, the civilization I knew is crumbling under alien attack."

He broke off, shaking his head with a groan.

"But now there's some hope!" Paige's voice rang. "Sparky and I have already used the weapon that will defeat the Martians. You know of it."

Aronson brightened. "It will? Then we'll contrive to go above, and bring the plans of this weapon along."

"But that wouldn't help," Paige ground out. "Most of our factories have been destroyed. Our industry paralyzed by the enemy's ceaseless bombing." He waved an arm around. "We must bring them along an albino army!"

"Evan, wait a minute," interposed the scientist, thunderstruck. "How are you going to convince the albino people to send such an army?"

"How can they refuse?" Paige countered. "They're human. When they hear of part of their own blood-race being savagely annihilated by monsters from another planet, they'll flock up there like the crusaders of the Middle Ages!"

"*Will* they?" Aronson was slowly shaking his head. "I've been accepted as a somewhat mad creature whose poor, dazed mind can't even remember what 'cave' he came from. They've fed me, let me live with them, treated me kindly, for that reason. You told me yourself how deaf Reena and Tal were to your story."

Paige hardly heard him. He burst in, nervously impatient to start the grand scheme off.

"Where is the ruling center? Take me there. If we go directly to the authorities, we'll get somewhere. Where is it?"

"A cavern quite near here. The ruler of Dorthia is a sort of premier or president, called the Kal of Dorthia. He heard of me and took some slight interest in me. But Evan, I don't know—"

"Look," snapped Paige, shaking the older man like a little child. "Up above maybe half the human race is wiped out, the other half doomed. This is a matter of saving the civilization we know. Get me an audience with this Kal of Dorthia one way or another!"

Aronson jerked erect. "I'll do it! Stay here, in the meantime. Your wounds have to heal anyway."

THE Kal of Dorthia was a tall, regal albino with a mane of long, blond hair that hung to his shoulders. Paige studied him. His face was intelligent, his eyes keen and kindly. Surely such a man must have an open mind.

"Dr. Aronson," nodded the Kal of Dorthia in recognition. "My aide tells me you plagued him ceaselessly for a week for an audience. What is it?"

The scientist pointed to Paige. "This man recently came from my world. He wishes to speak with you."

"Two more dark-skinned men!" marveled the Kal, glancing over Paige and Sparky. "One of my scientists has just advanced the possible theory that you, Dr. Aronson, and these men too, presumably, are"—he paused delicately—"freaks caused by excess radium emanation!"

"Freaks, nothing!" Paige stepped forward, boiling a little at the albino's patronizing smile. "We're from a different world entirely. It exists above and around your world. Millions of human beings like myself live there, and we have a civilization comparable to yours. Three months ago the Martians attacked, beings from another planet—"

Paige went on, describing the Martian invasion briefly. Aronson helped him when he was stuck for a word in the Dorthian tongue. Paige paused, out of breath, but went right on.

"In behalf of my world, I appeal for your help. It will not be an easy task. It will take an army of millions. But your fresh forces, powerful weapons, and impregnable base will stop the enemy. You are human. We are human. It is your duty, by race ties alone, to send your help."

The Kal of Dorthia had listened patiently. A smile played about his lips at times.

"Where do these so-called monsters you describe come from?" he queried.

"From another 'planet.' Another world."

"You mean another cave?" The Kal looked genuinely puzzled. "Beyond the Fire Zone? But that is the Heavy Region, where our people do not go to live. It's hardly explored."

Paige saw he would have to be more explicit. He did not notice the ironic look in Aronson's eyes.

"The Fire Zone lies just beneath Earth's crust. Climbing up through the crust you emerge into open air. The Earth is a globe, a gigantic ball, hanging in 'space,' in nothingness. Other worlds lie in space. Mars is such a 'planet.' And from it, across space, have come the invaders. Surely you must understand?"

"Gigantic globe—space—nothingness? You speak in riddles, dark man. Everyone knows that there is no nothingness, which you call 'space.' How can the world be a globe, when there is only rock in all directions?"

Paige groaned and tried again. He broke out in a sweat from intense explanation. Vaguely he knew himself to be Galileo, trying to say Earth revolved around the sun. Or Columbus, saying the Earth was round and that half the world lay beyond the seas, against all previous belief.

The Kal of Dorthia suddenly waved an imperious arm, interrupting.

"It is a mad conception. Dr. Aronson told me the same thing. I convinced him such thoughts are wholly wrong."

"But at least you can send an expedition with us beyond the Fire Zone, to disprove our claims," Paige said desperately.

"Not at present," the Kal retorted. "King Luth of Uldorn is again waging war on us. All our activities must go into protection of our cave system."

"But Good Lord!" exploded Paige. "Don't you realize that over your head your own blood-people are being exterminated, massacred!"

"Enough!" snapped the ruler of Dorthia. "I deal with realities, not the figments of a madman's brain. Go!"

Baffled rage shook Paige. He took a step forward, fists clenched, but Aronson pulled him back.

"Don't be a fool!" he hissed.

"No use, Sarge," Sparky sighed. "Like with Tal and Reena."

Paige turned helplessly, to leave the chamber.

The Kal of Dorthia's voice floated to them, at the door, "You will be allowed to live with us and be treated well, dark man. I did not mean to be unkind to you."

"Treated well, like lunatics they pity!" Sparky muttered.

Paige ground his teeth, out in the hall. "How could the man refuse? How could he be so obtuse, ignorant, heartless?"

"No, Evan," cut in the scientist wearily. "You can't blame him. Think once, suppose it were the other way around. Suppose two albino men had stumbled up

into our world, made their way to Washington, and demanded that the United States send a vast army down to defeat monsters who were wiping out the buried albino race. A race we never heard of, never even dreamed was under our feet. And monsters we couldn't believe in, because we had never seen them before. Picture that, and then try to picture 130,000,000 practical, hard-headed Americans taking up the crusade."

"Yeah, especially past that Fire Zone," agreed Sparky.

"Okay, I get it," muttered Paige. "When you look at it that way, there is some excuse for them. But at least our people would send down an expedition to investigate!"

"Would they? If powerful, bloodthirsty European armies were invading the coasts at that particular time? Here's how the situation is: For the past three years, there has been growing friction between the Dorthians and Uldornians. They are the two great 'powers' down here. There are separate governments and cultures, just like above. King or Dictator Luth of Uldorn rules over a vast chain of caverns lying roughly under the Pacific Ocean and Asia. He has built up a powerful aggressive army and has been absorbing smaller, independent cave-states. He is now creeping at the 'borders' of Dorthia, ready to smash at it with all his power. The Kal of Dorthia is concerned with that, not a hypothetical new world that needs help."

"And remember the recruiting officer up above?" put in Sparky. "He didn't believe about the underworld for a minute. How can we blame these people? We had to desert the Earth forces to even get down here!"

Paige suddenly felt as though a crushing weight had descended on him. Two worlds, neither of which believed in the other! One world, too panic-stricken with doom to investigate possible rescue. The other, preoccupied with a civil war, unaware that monsters were killing off half their blood-race!

The gods must be laughing at the cosmic irony of it.

What could be done? What possible way was there to break this nightmarish deadlock? Paige didn't know. He just didn't know any more.

VI

THEY were suddenly electrified by the clanging of a great bell. The sound reverberated through the cavern deafeningly.

Startled, Aronson turned. Dorthians were scurrying by excitedly. He grabbed the arm of one man, questioned him. His reply was too rapid for Paige and Sparky to grasp.

"Attack!" Aronson told them. "By Uldornian forces!"

"Here?" gasped Paige. "At the center of Dorthia?"

"No. Reena's city, at the 'border' of Dorthia. But a real attack, this time. The beginning of large-scale war. The Kal of Dorthia has just called for general mobilization."

The scientist's face was grave. "This is a big crisis down here in the underworld. The start of a great war that may drag on for years!"

Paige's nerves tightened suddenly. Reena in danger! That one thought stood out above all others. He clutched the scientist's shoulder.

"I'm going to Reena's city!" he said hoarsely.

"Evan, Good Lord—why?"

"Because he loves her!" Sparky said simply.

Aronson stared for a moment, then smiled in understanding. "We can't do much for ourselves right now, anyway. Come on, I'll take you to the tube-cars."

He led the way to the tube-car system. Soldiers were piling in, part of the standing army rushing to the defense of the border. Paige shouldered uniformed men aside and leaped in one of the cars. As he settled himself, Sparky attempted to follow.

"Not you!" snapped Paige. "It's enough that I'm crazy fool enough to go. You stay here with Dr. Aronson."

"Okay, Sarge," Sparky said obediently, with a slight quiver of his lips. "Take care of yourself, Sarge."

Paige gripped his hand. "I'm a fool, I know. But I can't help it. If I don't come back, try your damnedest to talk the Kal into an expedition. I'll try what I can, maybe on the Uldornians. Some way or other, we'll work this out."

The car's cover slid forward. A moment later the long train moved, slowly gathering speed. Paige heard the muffled throb of motors, and the drone of powerful rockets. This train was going up, against gravity, and needed power. Yet its speed, after acceleration, was scarcely less than that of free fall. The train roared up into its tube like a runaway comet.

Paige's thoughts were in a turmoil. His adventure into the underworld seemed more than ever a page out of the impossible. War raging above ground and below ground. Buried humans fighting under Earth's crust for a few paltry caves. Doomed humans above ground counting their last hours.

The universe was a madhouse.

It was ironic, too, that at the moment Paige cared nothing for those things. Two worlds precariously dangled by fate, and he thought only of Reena, lovely albino girl of the underworld, and her possible danger!

FIVE hours later the train slowed and ground to a halt.

Its soldier-passengers stepped out into the midst of battle. The enemy was pressing forward, bent on capturing the tube-station and cutting off both retreat and reinforcement. The trained Dorthian troops scurried for cover, unslung their rifles, and began peppering away.

Paige gasped as he raised his head and felt a diabolic bolt whine past his ear. Then fire leaped into his eyes. That strange madness which comes over men in battle swept through him. He leaped out with tigerish speed, and crouched behind the protective train. His shoulder wound was completely healed, after a week in the gravityless sanitarium.

A moment later he picked up the rifle of a Dorthian whose crushed body lay sprawled over the stone floor. He loaded his pockets with charge-clips from slain Dorthians and settled down to the grim business of picking off as many of the enemy as possible. In this way he was helping Reena, who was safe back in the city. But if the city fell—

Paige looked around.

A wide no-man's-land separated the two forces. Periodically the enemy charged in little detachments, never getting more than halfway. But Paige recognized the tactics. The detachments drew concentrated fire, marking the strongest and weakest points of the defending Dorthian line. The Uldornian generals must be paving the way for a great assault, within an hour, Paige reasoned.

His eyes narrowed suddenly to a frown.

Why didn't the Dorthians counter-attack and flank? Now was the time. It would be too late soon. It was ABC military tactics. A queer thought struck Paige. Was it possible—just possible—that the military of both Dorthia and Uldorn knew nothing of flanking?

Napoleon had beaten all Europe to its knees that way, once.

Paige stopped firing and crawled on hands and knees toward the center of the Doathian forces. He made out the officer in command—a general evidently rushed from headquarters to supersede Tal, now that the full tide of war had begun. He was staring out over the battlefield. Beside him stood Tal Rithor, now second-in-command. There was a strange look in Tal's face, as he glanced from the battleground to the city, as though contemplating how soon the city would be in enemy hands.

"Tal!" Paige called, striding up. "Is Reena safe?"

Tal Rithor started, and flushed as he met Paige's eyes, as though caught off guard. "So you're back, Evan Paige? Just in time to see the city fall!"

Paige grunted at the fatalistic words. He whirled on the high-commander, who hadn't noticed him.

"The enemy will attack soon, in force," Paige said without preamble.

"Yes, and we will be wiped out," returned the commander imperturbably, without turning his head. "We are outnumbered. The city will fall. But we will fight to the last man."

IT was starkly clear to Paige then. Middle Age warfare, frontal attack, no strategy, no thought of outwitting the enemy. Paige could almost understand. The albino people had never known wide battlefields on which to experiment with maneuvers.

Paige drew a breath. Could they be taught?

"There's still a chance!" he said. "Look! Send a file of men hugging the left wall, in the shadows. Halfway to the first Uldornian line there's a hollow. From there they can blast out at the enemy attack from the side, taking them completely by surprise!"

"What?" For the first time the commander turned, surprised. He started at sight of the dark-skinned man, in a uniform that was not even regulation. "Who are you?"

"Tal Rithor knows me."

"He came through the Fire Zone recently," Tal nodded. "From some isolated cave beyond. He is not quite—" Tal stopped but the innuendo was plain.

"We are not playing a game here, dark man," the commander said, as if to a child. "We are fighting."

Paige groaned aloud. Anger surged in his veins.

"You idiot!" he yelled in English. "Go ahead and murder your troops. I don't care!" He bit his lip, gripping himself. Once more, desperately, he tried to explain the flanking movement.

"Evan Paige, you must stop," interposed Tal, glancing apologetically at his superior officer. "You are trying to tell us our business. Now come with me to the rear lines."

Paige flung his hand off with almost a snarl, and kept on speaking. Two other officers had come up, listening. Sudden fire seemed to strike in their minds. The military men looked at one another, and then at Paige.

"Perhaps it is worth a try!" mused the commander.

"Sir, it would be a mistake," Tal deprecated. "My poor friend's mind thinks up all sorts of queer ideas."

Paige glared at the young albino. There was something strange in his attitude. Had Reena perhaps told him of Paige's kiss, and thus stirred his jealousy? Or was it something deeper, more vital?

The commander hesitated, trying to make up his mind.

"You have nothing to lose," Paige stated flatly.

"By the head of Luth, no!" the commander exclaimed. "We will try this so-called flanking, dark man. If it fails, we will all die anyway."

Paige himself led the men. Single file, a thousand Dorthians crept warily along the left wall, where numerous overhangs and outjuttings cast shadows. An hour later they were lined in two close phalanxes, one kneeling, one standing, as Paige ordered.

Paige waited tensely. They were barely in time. There was a sudden ominous hush from the enemy. Then they came, in Hun-like tides, charging across the space. Paige held back the signal to fire till the last moment.

Then his arm flung down.

A withering crossfire burst from his troops, into the side ranks of the unsuspecting enemy. It was slaughter. The Uldornians pressed forward against the fire from front and side, by sheer momentum. But when Paige gave the order to charge, pressing them into a disorganized mass from his side, they broke. In a half hour the battlefield was clear, except for the dead. The Uldornians had lost heavily. And they hadn't gained an inch.

The Dorthian commander, facing Paige again, saluted. "You are hereby appointed my second-in-command!" he said directly. "That was a magnificent maneuver!"

All the officers murmured agreement. But Paige noted that Tal Rithor's face was expressionless. He did not show resentment, for being displaced. There was a queer, indefinable air about him, of cold watchfulness.

The commander's face fell into worried lines, the next moment. "But it will still go hard with us. The Uldornians are here in full force. They will attack again and again."

And they did.

HOURS flew by. Hours of humming death, dying men, grim struggle for mastery. Paige used all the tricks he knew from Earth's battlefields: double flanking, sniping, fake counter-attacks, anything and everything to harass the enemy. They might ordinarily have won hours before. Instead, now, the chances were better than even that the Dorthians could hold out till adequate reinforcements came.

But the enemy prepared for a final gigantic assault. Dorthian lookouts made

out the massing of all their troops, behind their lines. Conferring with the officers on this, Paige outlined a daring maneuver. It would be a triple flanking movement. Two thousand men were to slip past the Uldornian left flank, when they charged, and come up from the rear! The enemy, still amazed and baffled at the flanking that robbed them of quick victory, would hardly conceive of attack on their rear.

Paige and Tal Rithor led the men. They reached their position and waited. Heart pounding, Paige looked for the enemy to appear. And then, suddenly, he was aware that Tal was gone!

There was little time to think that over, or look for him.

The grand attack came, like a juggernaut, wave after wave of men.

While the left flank engaged the van of the attack, Paige waved his men past. A thousand went down, under fire, but the other thousand straggled through, reformed, and swung in a wide circle, to fall on the Uldornian rear.

Just as Paige was congratulating himself on success, it happened.

Five thousand yelling, vengeful Uldornians leaped from a concealed vantage, as though waiting for them. They fell on the Dorthian force devastatingly. The Dorthians could not retreat. Paige cursed as his men were decimated on all sides. This shattered the whole Dorthian plan. Uldornian victory was assured.

As though waiting for them!

This phrase had stuck in Paige's mind, all the while that he fought hopelessly, firing from one knee. The Uldornian detachment *had* been waiting. How had they divined a strategy they knew nothing about?

There was one possible answer, though Paige hated to think of it—the disappearance of Tal Rithor!

But nothing mattered any more.

Paige was marked for death. He felt as he had that day against the Martians, with the regiment doomed. Here he could not even run, with limiting walls on every side. He could only keep firing, accounting for as many of the enemy as possible, before the shot with his number on it arrived.

He glanced around. Not one of his men was alive, for yards around. He was marooned in an island of dead bodies.

Up ahead, a body of blue-uniformed men came surging toward him. He fired into their massed numbers, taking savage delight in seeing three men go down like tenpins. Then they spread. The men at both extremes kneeled, taking careful aim at him. Paige got one, but knew he couldn't get the other.

He heard the vicious hiss of a bolt and felt a jerk as the gun in his hands took the shot. He was unarmed now! Then he noticed the men running up without firing. They were going to capture him alive! A moment later they gripped his arms and were hustling him back to their lines, out of the battle zone.

Paige turned back to look. Far across the battlefield strewn with bodies he could see the waves of blue-uniformed Uldornians sweeping past the tube-station and into the city proper. The fight was practically over. The city had fallen.

When Paige turned his eyes back, he looked directly into the face of Tal Rithor, smiling triumphantly. He had come up from the enemy camp.

"Renegade!" snarled Paige.

"Call it what you want," Tal replied. "The fall of this city was planned, with my aid, weeks ago." His smile became threatening. "I think King Luth will be interested in seeing the man who caused so many of his troops to be killed needlessly. I told them to take you alive."

VII

HOURS later, rough hands woke Paige from the sleep of utter exhaustion he had fallen into. He was still chained before the enemy headquarters, where they had herded him after the defeat. But now he was not alone. Dozens of Dorthian men were chained nearby, obviously high officials of the fallen city, now prisoners of war. They sat dejected, silent, bitter.

Paige suddenly sprang to his feet and strained at his bonds. The door of the temporary barracks had opened and Reena Meloth stood framed in it! Behind her came Tal, holding her arm. Seeing Paige, she struggled as though to run to him, but Tal held her firmly.

"No. You will never have each other!"

Tal grated. "After we rescued Evan Paige from the Fire Zone, your attitude toward me changed, Reena. This is my revenge. You must take me or—" He waved around at the Uldornian soldiers suggestively.

"Snake!" ground out Paige, wrenching futilely at his chains.

Reena's eyes met his. Paige thrilled, for in them he saw a glowing light meant for him. Tal, proving himself a renegade to their people, was no longer between them. The swift reversal of relationship left Paige almost giddy with joy, for a moment.

Only for a moment. Then crushing realization swept over him. He had gained that and lost everything else. A prisoner of the Uldornians, separated from Aronson and Sparky, perhaps for the duration of war. Fool! He had recklessly thrown aside his mission to save upper Earth. What could he do now?

Paige groaned from the bottom of his soul. Sparky was right. They should never have left the upper world, to embark on this mad adventure. At least, before the Martians, they would have had an honorable death.

His tortured thoughts were interrupted as a murmur of excitement rose among the Uldornians. All eyes turned.

From the tunnel passageway that crossed the former "border" of Dorthia and Uldorn came a procession. The enemy king, a short albino man with a long blond mustache, strode at the head of resplendently uniformed troops who marched with strutting legs. A cheer rose from the Uldornians as their king paused at the border-marking, gestured disdainfully, and stepped into Dorthian "territory."

Paige watched wonderingly.

How like a re-enactment of similar scenes on Earth it was! Before the Martians had come, a dictator in Europe had thus stepped triumphantly into captured territory. Nothing new under the sun, or under Earth's crust itself!

All the Uldornian army had gathered to watch this momentous occasion. They cheered and raised their arms in salute as Kink Luth of Uldorn stepped onto a stone dais erected for him.

"I take over this liberated city, in the name of Uldorn!" he spoke. His voice held emotional overtones that quivered through the giant cavern.

"My praises to my valiant army, for their splendid efficiency. This marks our first step in the conquest of the degenerate Dorthian state. Our victorious, invincible forces will sweep onward. In capturing this tube-station, we have access to dozen of other city-caverns, which will be taken under our beneficent wing. Soon our army will be hammering at the very heart of the enemy region. Dorthia will be ours and we will rule the universe!"

Rule the *universe!* He had used a word that translated that way to Paige, and Paige grinned mirthlessly. Little did King Luth realize that his rock-bound "universe" lay under another world!

The speech went on, in similar vein. Paige could have written the words for him. Upper world dictators had preceded him. The high-pitched tones worked the crowd into an emotional frenzy. The army would go on in its conquest with renewed faith in their "cause," whatever nebulous thing it was. Paige didn't know enough of their language to get that clear, but he knew it wasn't important. He'd heard something like it before.

Paige's mind reviewed its own thoughts. Bitterly he hated King Luth and his program of conquest. If it weren't for that, the Dorthians might have listened to him and investigated his story of upper Earth holocaust. As it was, the underworld people would be engaged in this struggle for mastery of the "universe" for years. If ever they did penetrate to the upper world, it would be only to find an alien race of monsters firmly entrenched.

Paige groaned mentally to himself again. Up above, the human race wiped out. Below, the human race under the control of a dictatorial régime. Cruel fate had dealt a double blow to the race of creatures who had struggled up so agonizingly from the ape.

AN hour later, his official speech-making over, King Luth looked over his Dorthian prisoners, contemptuously sentencing them to death. Finally he stopped before Paige and Reena.

Tal saluted him.

"Ah, yes, Tal Rithor," nodded the king. "I have been told. For your part in our

victory, I hereby appoint you governor of this city!"

Tal beamed, looking at Paige and Reena. They turned their eyes away in loathing. For this he had sold himself to the enemy. With a malicious grin, Tal pointed to Paige.

"This is the dark man, sire, who was also mentioned to you."

The King of Uldorn turned his pale eyes balefully on Paige.

"Then you are the one, dark man, who so organized the Dorthians that they held out for senseless hours? It was an added cost to us of thousands of brave soldiers!"

His glare changed to thoughtfulness. "You must be a military genius. Are you a Dorthian? You have a remarkably dark skin. It does not matter, however. I will offer you leniency. If you reveal to us your strange new method of warfare, you will be absolved from blame for what happened before!"

Paige straightened his shoulders and shook his head firmly. "I am not a Dorthian. But neither will I lift one finger to help you!"

The king's face darkened. "Then I sentence you to banishment above the Fire Zone, in the Heavy Region! You will wander there for days, lost, and finally die of madness!"

Paige's heart leaped. Banishment above the Fire Zone! That way led to the upper world! Perhaps, winning his way up again, he might still do something about his mission; try again to have an Earth expedition come down.

He hastily wiped a faint smile of satisfaction from his face and tried to look properly dismayed.

Tal Rithor had been watching him narrowly.

"No, sire!" he interposed quickly. "This dark man came from a cave above the Fire Zone!"

King Luth looked astonished. "Go on!" he commanded.

Tal told the story of Paige's rescue from the lava flows, and also the arrival of Dr. Aronson, months before.

"Thus these three dark men have come down from some city-cavern above the Fire Zone," Tal concluded. "I have listened to their stories closely. They describe their cavern in such terms that it must be the largest in existence! Furthermore—"

He paused and went on tensely. "I have surmised that their cavern may be the key to a quick conquest of Dorthia!"

King Luth started, no less than Paige and Reena.

Tal went on slowly.

"They speak of their cavern being above *both* Dorthia and Uldorn. If there is a way down to Dorthia, there must be one to Uldorn. If their story is true, that their cavern is a huge one, it must also lie above other sections of Dorthia. Perhaps other passages lead to Dorthian caverns, or can be quickly blasted out. The Uldornian forces could then attack Dorthia in a totally unexpected quarter!"

Paige gasped.

The whole thing was ridiculous, nonsensical. To carry out any such plan as Tal's, an army of Uldornians would have to march way across Earth, searching all other natural caves like Mammoth for possible entrances to the underworld caverns. Dr. Aronson himself suspected that Carlsbad, Yellowstone, and many natural caves in out-of-way places had access to the underworld, if once they were meticulously searched for.

But it remained that Tal had no conception of the hugeness of the outside world. Obviously, he thought of it simply as a large "cave," extending perhaps a few dozen miles.

"Is this true, dark man?" demanded King Luth.

"Of course not!" scoffed Paige. "It is true that I came from a world above both Dorthia and Uldorn, but you would never find other passages to attack Dorthia."

Tal and King Luth exchanged glances.

The king smiled a slow, knowing smile. "So! Now I am sure there must be such a passage, else you would not be so quick to deny it! You are a bad actor, dark man. You refused to help me before, earning death. I give you another chance. Show us the way to your cavern, and to one other passage to Dorthia, and you will be spared!"

Paige laughed aloud.

"I couldn't if I wanted to!" he retorted. "I could lead an army of yours up there, all right. But it would walk its legs off trying to find another natural cave for a

way down. I'd have to walk it from Kentucky to New Mexico, to the Carlsbad Cavern, as a possibility. That's only about two thousand miles—half-way across all Dorthia! No, King Luth, I can't help you in that, even assuming I wanted to!"

Again Tal and the king exchanged glances.

"He seeks to confuse us," observed Tal. "He is trying to cover up the fact that his cavern *is* the way to quick conquest of Dorthia!"

"You fools!" snapped Paige, humor leaving him. "When I tell you the truth, you don't believe it. If you'd only believe my story as it is—but, of course, you won't, any more than the Kal of Dorthia. What's more, if your army went up there, it would run smack into the Martian forces."

Paige stopped, choking. He staggered mentally. They weren't the fools—he was! He didn't speak for a minute, his mind churning.

King Luth, watching him, waved a hand. "You still refuse. Therefore, you must die."

"Wait!" Paige took a deep breath. He was trembling. Sweat beaded his forehead. "I don't want to die!" There was a whine in his voice.

The king smiled triumphantly at Tal. "He has broken down!" To Paige he said: "Will you show us the way to your cavern world, then?"

Paige nodded, haggardly.

REENA, who had listened silently all the while, darted him a strange, shocked glance. Her eyes seemed to plead with him, but Paige looked away. Then her lips curled. Deliberately, she shrank away from him, with an expression of loathing.

"Reena!" Paige stammered. "Reena, please! After all, it's my life. What can I do?"

To himself Paige was saying: "Make this good! Don't overplay your hand, but make it good!"

Out of the corner of his eyes he watched Tal. Somewhat suspicious of the abrupt breakdown on Paige's part, Tal now grinned in satisfaction. It pleased him that Reena showed the same contempt for Paige that she had shown for Tal.

Paige turned away from the stony-faced girl, hoping he wasn't making too melodramatic an air out of it.

"Listen, then. Here's how it must be done. My people are numerous, in our cavern above the Fire Zone. We have armed forces, too. It will be best for you to send a large force along with me, to reach another cave-entrance to Dorthia."

King Luth looked perturbed. "You have armed forces? Then perhaps it would gain us little."

Paige called forth all the histrionic powers at his command. He looked as relieved as he could.

"Yes!" he hastened to assure. "You would have to fight my people first. It might gain you nothing. I speak the truth. I want to save my life. I will take your first offer, to show you our military tactics."

"Sire!" burst in Tal. "He is trying to dissuade us now from going to his cavern. It must mean he is trying to save his own people. Despite their clever military tactics, they are weakly armed. They used obsolete propulsion-weapons."

His eyes lighted. "Another thing! His uniform is a military one. He came down for help, against an enemy. His people are at civil war—divided!"

Paige looked guilty. He nodded reluctantly. But then he said sharply: "But your armed forces are not strong enough to conquer my people, divided though we are. I tell you, you can't! You will not easily conquer my people."

"*Conquer* your people!" interrupted King Luth, taking the bait. "Yes, we *will* conquer your people! Uldorn will add another part of its great kingdom. Obviously, they are weak, by your hesitation, dark man. We will conquer them quickly and then strike at Dorthia. It is my command. You, Tal, and this man will lead an expeditionary regiment to the upper cavern. If by some chance they prove too strong, send word and I will rush reinforcements. If the dark man tries treachery, torture him."

"I have a better suggestion," Tal grinned evilly. "Let us take the girl along, whom he loves. If the dark man attempts to lead us astray, *she* will be tortured!"

"Good!" nodded King Luth. "The regiment will start tomorrow."

VIII

AGAIN Evan Paige felt that it was all a strange, incredible dream.

It was a week after the fall of the city. Behind him marched a regiment of Uldornian soldiers, powerfully armed. On his left and right were Reena and Tal. The girl was silent, drawn-faced, and had hardly spoken a word to either of them in six days. Her contempt for both was equal. One renegade deserved no better than another.

Tal Rithor strode along eagerly. As commanding officer of the regiment, he stood to gain much in prestige and favor with King Luth, if Paige's cavern-world were successfully negotiated.

The way led upward steadily.

They had passed through the Fire Zone three days before. Again Paige saw why it had placed a natural limit on the expansion of the albino people. It was a hot, tempestuous region of linked caverns, with treacherous lava flows springing out at any unguarded moment. They had lost more than a dozen men, despite caution. And once, by a miracle, the regiment had barely quitted a cavern before a veritable cloudburst of molten, hissing rock dropped down from the ceiling. Had that struck them, the whole regiment would have been wiped out.

But that was all behind them now. Ahead lay fifty miles of Earth's crust to penetrate. And they were constantly struggling against gravity, fighting their slow way up. Thus the region had long been known as the Heavy Region, where the peak of gravity existed. The bulk of albino population lived at least a thousand miles below, where gravity was only ¾ of surface gravity.

Paige followed Aronson's arrows, in reverse, leading the way.

Tal looked at him suspiciously at times.

"If you are leading us astray, Evan Paige, you'll regret it. You wouldn't like to see Reena—" He had then gone into detail, till Paige had to dig his nails in his palms to keep from leaping at the man.

But within himself, he laughed. For though Tal could not realize it, leading the army astray was the last thing in the world Paige would do. Sometimes Paige himself became a little confused, and wondered how it would all turn out.

Sweating and toiling their way upward, the army of Uldornian troops were muttering by the tenth day. King Luth had insisted that they take small cannon along, against any surprising power of the dark-skinned people. At times, where the way led over boulders or up steep defiles, the men had to sling the cannon on ropes and drag them up by sheer labor.

But they were hardy, well-disciplined troops, not easily dismayed by such drawbacks. They were superbly equipped, both in armament and supplies. Where the caverns were dim, lacking both phosphorescent plants and radio-active walls, they lighted the way with portable radium-glow searchlights. Well armed, they would be able to set a defense line anywhere and at the very least hold off against vastly superior forces till reinforcements came, were such needed in the venture ahead.

Paige grinned.

The venture ahead was going to have an amazing climax! And even Paige was not sure just what sort of climax. Only one thing was certain—that he was at last leading the albino people to the upper world.

He thrilled at the thought. He was introducing one world to another, neither aware of the other. He was a second Columbus!

Though all had gone so far as he planned, one thing bothered Paige and made his sleep troubled. It was the girl, and the open way she despised him for what he had done. Paige longed to talk to her, convince her she was wrong, and one day had his chance. Tal had slipped back a few dozen yards, talking to one of his officers.

Paige called her without moving close to her. It would not do for Tal to know he had spoken to her. She made no answer, staring straight ahead, moving her legs mechanically.

"Reena, listen to me!" he tried again. "Whatever you think of me, it isn't true. Do you think I'm deliberately showing the Uldornian army the way to conquer Dorthia?"

"Well?" she said witheringly, breaking her silence.

"But I'm not," Paige returned. "Please trust me. You must believe me. What

I'm doing is for the benefit of my people."

Her voice came back wearily. "I only know that this regiment can bring no good to my people!"

"Reena, you don't understand—" Paige began, but at that moment Tal returned, and Paige subsided. He stole a glance at the girl, for a sign that she might still trust him, but saw none.

Within himself, Paige alternately cursed her and forgave her. He could see her viewpoint, knowing no more of the outer world than the others.

TWO weeks after they had left their base, Paige drew a deep breath.

He was leading the way now across a cavern decorated by the ages with familiar stalactites and stalagmites. It was the cavern directly in back of Mammoth Cave proper. Another few miles. . . .

When they reached the narrow tunnel through which Paige and Sparky, and Aronson before them, had scarcely squeezed through, Paige called a halt.

"This narrow tunnel," he informed Tal, "is the only entrance to my cavern in this vicinity. It would take too long for each man to wiggle through. Have a cannon blast a larger passage."

Tal complied, after sending a man through and back. The albino cannoneers, past masters in the art of fashioning rock-bound tunnels, expertly hollowed out a large corridor. Their cannon's blasts peeled the walls down rapidly. Within the smooth fissure down which Paige and Sparky had slid, they blasted a sloping path through to the cave floor. And the regiment marched up into the back portions of Mammoth Cave.

"This is your cavern?" Tal queried.

"The beginning of it," Paige nodded. "Further on, there is a wide portal, leading into the main part of my cavern-world. Come on."

Tal was cautious. "I will send a man ahead first. Your forces might be lurking to trap us."

A scout was sent, following the arrows, and came back reporting he had seen the portal, but no sign of enemy forces. He had a sort of shocked look in his eyes, and was shivering.

"I looked out of the portal," he said. "It was strange. There were many little pinpoints of light in the roof of the cave beyond. Also a cold wind blew in."

And as they marched to the mouth of Mammoth Cave, after a sleeping period, Evan Paige grew to wonder what reaction the full sight of his world would have on these buried people.

From now on, he told himself, anything might happen! He had played with fate. How would fate now play with him?

THEY reached the cave-mouth when it was again night in the outside world. Paige strained forward eagerly, for the last hundred yards, though Tal's gruff voice warned him not to attempt to escape.

Finally he stood looking out into the night sky, his first glimpse of open air for more than a month. He stood drinking in the fresh night breezes. It was July and the summer stars beamed down like fiery beacons. He felt much as if he had been resurrected from a grave.

He turned.

What was the effect on the albino people, who had never in all their lives seen the sky, or stars? They were looking out in puzzled astonishment. They were all shivering from the breeze, knowing little of circulating air in their protected world.

"What a strange cavern!" muttered Tal, his face slowly turning to take in the night view. "It must be truly huge. The roof appears very high. But what are all those flashing lights?"

"Stars!" murmured Paige in his own language, since they had no such word. "Blessed stars! And that roof is a little higher than you think!"

A gasp came suddenly from Reena. She pointed a trembling hand. "Look! That great light—it is moving up! What can that be?"

All the albino people watched in shocked amazement, as the full moon slowly bulked over the horizon. Its light, though pale and soft, was almost as bright as the radium-glow lamps the albino people used.

"That is unique," commented Tal. "Your people are rather clever, Evan Paige. They move a huge radium-glow lamp across the roof. But on second thought, it's rather ridiculous. If this is the end of the sleeping period, why don't they have it overhead and simply turn it on?"

"We have our reasons," said Paige, the

corners of his lips twitching. He went on curiously. "How far away does that light look to you, Tal?"

"Well, perhaps ten *lengths*," Tal estimated. A *length* was the length of a certain cavern used as a standard in the underworld; approximately a mile. He shook his head. "No. I must admit this is a huge cavern. Twenty *lengths!*"

He said it reluctantly, as though he had betrayed his people's pride.

Some of the albino men in back gasped, at that bold and stupendous estimate. Paige laughed silently. The moon was twenty miles away! He realized something now. The albino people's eyes, never focusing on distances more than a few miles in their restricted world, had no mental equipment with which to judge distances beyond a few miles. To them, the "roof" actually was twenty miles away, and no more!

Paige watched Reena's face mostly. A strange succession of emotions had flitted across her alabaster-white features. First amazement, wonder, even a little fear, but finally something softer.

"It's beautiful, in a way," she murmured. "It's almost like something I've dreamed at times. And it's beautiful!"

She was swallowing, her eyes misting slightly.

And Paige knew, from that, that though the albino race had not known the surface world for an age, their primary memory still loved it. The ancestors common to both races had known these things for longer ages before. Life did not forget, though the individual might.

He pitied the albino people at that moment. They had been withheld from their birth-right.

IX

THE regiment pitched camp at the mouth of the cave, for its regular sleep period.

At dawn, Paige was up. He wanted to see the sunrise. As the first rose rays stole into the air, the sentries began to get nervous. They watched in growing wonder as the light became stronger and stronger. When they caught a glimpse of the sun, behind a bank of thick clouds, they shouted in alarm.

The army woke to pandemonium. Albino men jumped up, rubbed sleepy eyes, and then shielded them from the light pouring in from outside. Light that was dozens of times stronger than their brightest radium-glow lamps.

Tal sprang up, shouting orders. In quicker time than it ever had before, the regiment broke camp—and retreated! They retreated back into the cave, where shadows cut down most of the blinding daylight glare. There they stopped, and reorganized themselves. It had been close to a panic.

Paige had watched with amusement. He stood in the direct rays, letting the warm, pleasant sunshine tingle on his skin. He was pale from his confinement underground. The deep tan he had once had was faded.

Reena, too, had stayed behind.

She stood tensely, watching Paige as though ready to bolt when he did. But again he saw in her eyes a queer growing wonder and joy, as though she were seeing a dream unfold exactly as some dim racial memory told her it would. Her eyes, bluish now in the sunlight, watered as the unaccustomed radiation bathed them. But blinking bravely, she was staring out at the wide sweep of rolling meadowland, lush and green and beautiful.

"Evan!" she whispered. "It seems to go on and on, till my sight blurs! On and on—" She swayed suddenly, as though perched on some tremendous peak.

Paige caught her. He held her for a moment, and it was more than the sun that pumped heated blood through his veins. He started, then, peering closely at her.

The white skin of her face, hands and lower legs, exposed to the sun, had turned a fiery red. With a cry, he pulled her back into the shadow of an upright stone block. A few more minutes and her unpigmented skin might have had a bad burn! As it was, she was as red as a lobster.

Tal came running up. Glancing curiously at the girl, he clutched Paige's arm, as if to prevent his escape.

"I'd almost forgotten you," he panted. "But I should have known you wouldn't try to escape. Something has happened out there in your cavern. Your people are doomed! It is on fire!"

"No," Paige smiled in amusement at Tal's statement.

After thinking a moment, he went on. "My people have devised a great, bright lamp that is swung across the roof, just as the dimmer lamp was last night. My people find this light better to see by, and have become used to its effects on the skin. Your men can also endure it, soon, by letting their skins become dark, like mine. But it must be done carefully, a few minutes at a time, over a period of days, otherwise you will have serious burns."

Tal shook his head dazedly. "This is a queer enough cavern. But we will have to do it. Then we'll reconnoiter out and see what forces oppose us."

His eyes were suddenly on Paige, suspiciously.

"You didn't attempt to run away, though you had a perfect chance! And now you are warning us against the burn from this great lamp, when you could have let us go out and be burned! What game are you playing, Evan Paige? You would not thus easily help us against your own people."

"Don't forget there is Reena," countered Paige. "I didn't want her to suffer revenge meant for me."

The girl darted him a puzzled glance.

Tal looked from one to the other, clouds of doubt still hovering over his features. "I'm going to keep close watch on you, Paige," he growled. "You won't trick me."

He waved his hand-pistol, for Paige to return to their camp.

SHRUGGING, Paige turned, thinking deeply. The ice was thin. He could not play this subtle game much longer. And yet the cards had to be played in the right order.

His whole body jerked suddenly. A low hissing sounded from outside the cave-mouth, from the sky. Alert to all new things in this strange cavern-world, Tal switched around, peering up. His mouth fell open. A wide-winged, sleek airplane soared high overhead.

It was the first manifestation of the outer civilization, and to Tal it was an unbelievable phenomenon.

"What is that?" he cried. "How can that machine ride off the ground?"

"It's a machine that—" began Paige, then stopped.

There were no words to explain what he meant, in their language. He would have to say "flies like a bird" in English. Tal and the albino people had never seen a bird. They did not exist in the subterranean world. And they had no single word that meant "flying."

Paige saw the mental shell-shock in Tal's face. Hastily he said: "It is simple enough, Tal. We have a region, in the air, that is without gravity, just as your Center is. Machines float up there quite naturally. Is there anything strange about that?"

Paige waited to see the effect, wondering if his tissue of lies would hold together.

Tal nodded rather sheepishly, his tensed body relaxing. "Your people have strange things. Do they," he asked shrewdly, "arm those floating machines and use them in warfare?"

Paige nodded, putting a gleam in his eye for Tal's benefit.

He went on truthfully. "Yes, and they are powerful fighting craft. They rain down rays and bombs, sweeping whole armies to destruction."

"Enough!" cut in Tal, smiling. "I know when you lie, Paige! You're trying to frighten me, hoping I'll give up this campaign! But no—we'll sweep out into your cavern, when we have become adjusted to the burning light. Your clumsy tongue won't dissuade me from glory and conquest. You tremble, I see. But come, there is much to do."

Paige was trembling. But for a different reason than Tal suspected. The plane, now gone, had been a Martian craft, upheld by its miraculous hissing rocket jets. A patrol ship, probably, scouting over conquered territory for possible human survivors.

The sight of the ship brought sharp remembrance to Paige, like a knife thrust. The adventures in the underworld had dulled his mind partly to the upper world catastrophe, but now the full, agonizing, unbearable thought of it reared.

He saw something else, about a mile away, on a broad field. A strewn line of little khaki mounds, broken silent field-pieces, and gouged-out craters of torn ground. A battle had been fought there.

perhaps just a few days ago. A regiment of Earth soldiers annihilated. Several wrecks, of Earth planes, indicated how easily the Martians had won.

How far had the Martians advanced? Had the American army been driven back to the Rockies perhaps, while he had been below? Was Europe a vast graveyard of humans? Were the defenseless millions of China falling like chaff before the Martian juggernaut?

For all Paige knew, the Martians had broken all military resistance, and were now systematically running a vacuum-cleaner of death over Earth's face!

"Good Lord!" he groaned aloud at that thought. If only he knew. But he had no radio, no way of finding out at present. There was a plane there, a mile away, that looked unwrecked. Perhaps its pilot had been able to land it just before dying of wounds. Paige almost leaped away, burning to find out about his world, but eased back with another groan. Tal would shoot him if he ran.

Tal leered at him, hearing the groan. "There is no help for it, Evan Paige," he said vigorously. "I will conquer your people!"

A WEEK later, the regiment performed drills in the open space beyond the mouth of Mammoth Cave, under the hot sun. With Paige's apparently reluctant guidance, Tal had conditioned the men to the new climate. Daily they had gone out into the sun, for short periods of time, acquiring a steady "tan." Their white, unpigmented skin turned a rich red, as with Scandinavians who went to warmer climates.

Active, hardy men, they were quickly becoming acclimated to extremes of heat and cold unknown in their sheltered world. The blowing of even the gentlest wind was to them a source of wonder.

Tal, watching the drill, turned to Paige. "Look how energetic the men are. Somehow, these strange conditions are invigorating!" He drew a deep lungful of air. "In a way, Evan Paige," he admitted thoughtfully, "your cavern is a desirable place to live in!"

Paige felt almost friendly toward the man, at this. As with Reena, a heritage of instinctive memory must be whispering to him. It told him that this was the world man was meant to live in, not the sunless depths below.

Yes, man's world—but for how long? How near was the end of mankind's reign, usurped by the Martian invaders? The thought chilled Paige to the marrow.

"I have been looking at the blue rock of the roof often." It was Reena speaking, her voice awed. "Sometimes I have the feeling that nothing is there at all!"

Paige looked at her. Though she was unrelenting in her attitude toward him, she was changed. She had become vital, alive, thrillingly lovely. With her carmine-tinted face, framed by ash-blonde hair, she was like some rare, exotic blossom.

Tal's eyes involuntarily turned upward, also, to the mystery of the sky, with a look close to fear. "Yes, at times I wonder, too."

"How foolish!" It was Paige himself who scoffed. It was not time for them to know. "The bright light my people use gives the illusion of emptiness. The roof is there."

"Of course!" agreed Tal, shaking his head in self-reprovement. "There must be a roof. It wouldn't be possible to conceive of its absence."

One more phenomenon Paige had to explain away—rain. Swift clouds came up, precipitating a brief but thorough downpour. A mere summer shower, but to the albino people, watching from the shelter of the cave, it was stark novelty. They knew water, but only in trickles that seeped down from the ocean bottoms, down into their isolated catacombs. What was this incredible dropping of lakefuls of water from the roof?

"My people use this method of watering their crops," Paige lied magnificently. "It is easy to transport water into the gravityless region above and then propel it downward."

Lightning and thunder, accompanying the shower, still more amazed the albino people. And it brought something of fear.

"A distant battle, in our war," Paige improvised.

Tal pondered. "More and more I begin to wonder what manner of science your people use—"

"We are great scientists!" interposed Paige instantly. "You have seen the great

lights we use, the flying machines, those thunders and flashes of our weapons, and how we handle large quantities of water. We have a great science!"

Tal automatically gave a cynical leer.

"I see it clearly now, Paige. You've been trying to impress me with your people's greatness. You wish me to withdraw! But I'm more determined than ever to go on. My plans are careful. I've sent a messenger back to King Luth, telling him of what we have found, and to hold reinforcements ready at a moment's notice. In the meantime—"

PAIGE'S ears caught a low sound throbbing from the sky. He interrupted Tal. "I tell you my people are powerful! Their air machines will come and blast you to dust."

The hissing drone became louder. They all heard it. Another rocketplane sailed grandly into view, overhead.

"Blast us, eh?" grunted Tal. "We'll see."

He whirled, shouting orders. His men obeyed, dragging forward their cannon. Lightly mounted on smoothly swiveled bearings, the tubes could be pointed in any direction swiftly.

"Don't!" Paige yelled, though within himself he exulted. He had played the cards right!

The cannon began to *whoosh* softly, as their bolts of atom-compressing force stabbed invisibly into the sky. The Martian ship was about 2,000 feet high, easily within range. But the Uldornian gunners, unused to such a fast-moving target, aimed far behind.

Paige held his breath. Would the chance pass? Would the ship escape?

But the Martian ship sealed its own doom. It slowed down and circled, obviously interested in the human figures below. They heard no cannon-roars, as with Earthly artillery, and so were unaware of being shot at.

The Uldornian gunners took better aim. Quite abruptly one wing of the ship crumpled. The craft flopped, burst into flame. It streaked down like a blazing comet to land with a sodden crash a thousand yards away. Its fiercely burning fuel formed a pyre out of which no creature could escape alive.

A hush came over the albino men. Then Tal waved triumphantly and a cheer of victory welled from his regiment.

"Thus we deal with your vaunted floating machines of war!" Tal crowed.

Paige stared at the burned Martian wreck. His spirits sang. All had worked out as he had planned.

The albino army had struck—not at his people—but at the Martians!

The Martians would retaliate, when another patrol ship searched for the missing one. Coming in force then, they might wipe out the regiment very quickly. But in the face of defeat, Tal would send a message below. The news would sweep through the underworld. King Luth would not lightly forget the annihilated regiment. He would send up stronger forces.

That had been Paige's grand plan, from the start. To pit two powerful forces against one another. King Luth's vast army of conquest, and the ruthless Martians. But would it work? It must, Paige told himself.

It must!

X

HE was still staring at the wreck, thinking these world-moving thoughts, when dusk settled. The Uldornian regiment had made camp in the open air, outside Mammoth Cave, for the first time.

Tal Rithor sidled up to Paige, rubbing his hands.

"I will send out scouting parties tomorrow," he informed. "When we have learned where your people's forces lie, we'll attack. I don't care which side, in your war, they are on. I'll conquer them both!"

Tal radiated supreme confidence that he felt since bringing down the amazing "floating machine" so easily. Paige was glad it was dark, hiding the sardonic smile on his lips. If he hadn't missed his guess, Tal would have a fight on his hands by the next day. The Martians would investigate the lost patrol ship, spy the camp of humans, and attack!

His spine prickled suddenly, as a shout of alarm rose from one side of the camp. Paige whirled. Had the Martians arrived already? Yet he had heard no sound of aircraft.

A sentry came running up, face working. "The enemy, sir!" he reported to Tal. "They are at the mouth of the cave!"

"The enemy," snapped Tal. "Who?"

"Dorthians!"

Tal was already running toward his camp's edge nearest the mouth of Mammoth Cave. With a startled gasp, Paige followed. They halted a hundred yards from the cave-mouth. The gibbous moon, rising, shed light upon uniformed figures, gun in hand, staring out, obviously surprised themselves.

"Dorthian troops!" confirmed Tal, breathing heavily. "How did they get here?"

He stared at Paige, suspicion crawling in his pale eyes.

Paige stood stunned, asking himself the same question. Then he made out the stocky figure without a uniform, standing with arms outstretched, head high, like a man viewing a heaven he had been absent from. Dr. Aronson! He was seeing the upper world again, after long months of sojourn beneath. Little wonder, Paige reflected, that he stood as if bewitched. Beside him was Sparky, also staring around raptly, swaying a little on his game leg.

"Aronson! Sparky!" Paige called.

The scientist started, peered out and then ran in his direction.

"Halt!" yelled Tal. Behind him, his under officers had already aroused the regiment into watchful readiness. "Surrender your troops, in the name of King Luth, or we will fire!"

Aronson's flying figure did not hesitate. Tal seemed about to give the battle signal. Paige gripped his arm fiercely. "You can't shoot a defenseless man! He has no weapons. He wants to talk with us."

Tal hesitated, then gave low commands. His men stood watchfully, but did not fire. Aronson came up pantingly, and almost fell in Paige's arms.

"I can't believe it's you, Dr. Aronson!" Paige said, his thoughts confused. "And Dorthian troops with you! How did you convince the Kal of Dorthia."

The scientist spoke between gulps of his lungs.

"Sparky did it. When the news of Uldorn's first major victory came through, Sparky worked on him. The Kal was worried. Sparky told him this cavern-world extended over parts of Uldorn, which he could counter-attack. He didn't try to say any more about what this 'cavern' really is, or our strange story of Martian invasion. He simply appealed to the Kal's practical side, that from here he might find a way to invade Uldorn and stave off what looked like the eventual downfall of Dorthia. The Kal finally agreed to send up an expeditionary regiment."

He stopped, panting for breath.

"Exactly how I worked on King Luth!" Paige went on briefly, explaining his part. "Good work you and Sparky did," he finished. "We got the albino people out here after all, into this world they positively wouldn't believe in! And now, we have some real work ahead of us."

HE went on, telling of the Martian ship shot down, and the eventuality of Martian attack. Tal's face was suddenly before him, dark with rage. He had listened closely as they spoke in English. Paige suddenly realized he might have understood.

He had—in distorted fashion.

"Treachery!" he spat out. "You two planned this. One of you to lure an Uldornian regiment into your cavern, the other a Dorthian regiment, to fall upon us. And then *your* forces—the 'Martians' you call them—are to join with Dorthia in invading Uldorn!"

He glared accusingly at them. Neither Paige nor Aronson could think of anything to say that would sound sensible. Tal's face worked dangerously. "But I'll show you how you have underestimated me. I'll wipe out the Dorthians and then deal with your forces!"

Whirling, he screamed out the order to begin battle. Then he turned back, directing his aides to chain Paige and Aronson to a great boulder, out of range of the battle zone. Reena was brought up a moment later, and chained. Tal eyed the three of them.

"When we have won, I'll deal with you. If we should happen to face defeat, our last shots will take you with us!"

He dashed away, to direct the struggle.

Paige looked at the girl. In the glow of moonlight, she was a picture of loveliness. Her eyes were on him, not hostile

now, but in complete understanding.

"Forgive me, Evan!" she murmured. "I see now what you planned. The presence of the Dorthian troops here shows your good intention, however it turned out. You had hoped the Dorthian troops would get here first, to strike at Uldorn?"

Paige shook his head, groaning.

"No. My plans are all shattered. I had hoped to pit Tal against the Martians. Now, instead, the Dorthians and Uldornians will decimate each other. When the Martians come, they will find little opposition. Don't you understand, Reena, it's the Martians who are to be feared! They come from another world, beyond the roof."

Paige stopped. How could he explain this to the girl who still thought of Earth's surface as a huge cave, with a roof? The conception of another planet, hanging in space millions of miles away, could have no meaning to her. So he thought.

She was staring at him thoughtfully. "There is no—no roof?" she queried slowly.

Paige glanced at her hopefully. "None at all. Space goes on forever."

She took a deep, shuddering breath, as though assimilating that fact, once and for all. It was not less in degree than a person of upper Earth having suddenly to believe that the sky *was* a roof.

"And these Martians you speak of—they come from another world, far away? From up there, many times farther than the greatest distance in Dorthia?"

Paige pointed to the fiery red speck of Mars, following the moon. "From there they have come."

"They are not human?" she whispered.

"They are monsters; ruthless beings who are killing off my people relentlessly." He watched the girl. What effect was it having on her, if she believed?

She believed, now. He could see that in the dread and horror that darkened her eyes.

"My people," she said suddenly, "should help your people, Dorthians and Uldornians alike!"

Paige choked. If this girl's reaction were only a symbol, a token, of how all the albino people might react, if they once knew and understood! But then he turned bitter, defeated eyes on the battle raging.

"Your civilization fights a civil war," he groaned, "while mine goes under!"

XI

THEY watched the battle.

It was fought under the dim light of the moon. But to the albino people, it was natural, like the battles fought underground in their sunless labyrinths.

Tal had deployed his men in a wide circle facing the cave mouth. Steady fire poured in, and steady fire returned. The Uldornians were at a tactical disadvantage. But on the other hand, Tal had remembered the advanced military maneuvers Paige had employed below. Sparky was commanding a regiment of Dorthians who probably misunderstood most of his orders, new to them.

A secret company of Uldornians crept to the side of the cave-mouth, and attacked. When the Dorthians blindly flocked to resist, a second flanking group fell on their side.

The battle raged on, while the moon slowly climbed the zenith. Paige foresaw already that, all else being equal, one or the other side would win by a slim margin, depending on luck. He ground his teeth helplessly, at the thought of human beings, albino or not, killing one another off, in the very world where an alien power wanted just that.

"Aronson," he muttered, "I guess we've failed."

"Hsst!"

It was a low warning from back of them, in the shadow of the boulder they were chained to. The crouching form of Sparky crept close, one eye cautiously on the guard who stood with back turned, watching the battle.

"Sparky!" breathed Paige. "How—"

"Hi, Sarge," whispered Sparky, pressing his hand. His mouth twisted a little. "Deserted again—the Dorthians. Wanted to find you. Figure out something. This fight is crazy. We should be blasting at the Martians!"

"Yes," Paige said brokenly. "After all my planning, and yours, we run up against this stupid, blind, senseless stone wall. The underworld people fight below, and now above, too. And the Martians, meanwhile, take over Earth!"

Sparky's face twisted convulsively. "Lord! How I'd like to get one more lick at the Martians!"

Paige laughed a little wildly, bitterly. "You can, maybe. I think there's an undamaged Earth plane, a mile away." He dismissed the thought. "But Sparky, can you free us?"

Sparky was already aiming his Dorthian blast-pistol at a portion of the chain that held Reena. Three bolts and the chain clinked apart. Reena stood free.

"Hurry!" whispered Paige.

Sparky sent two bolts at Aronson's chain. The guard turned, finally hearing. With a shout of alarm he ran forward, pistol upraised.

"Got to do it," muttered Sparky, aiming at him.

But there was only a dull click from his weapon. "Used my shots!" he cried. "And I have no more charge-clips. Sarge, I've got to go. I'm deserting again."

With that Sparky scuttled away as fast as he could, with his limp. The guard fired several times into the darkness beyond the boulder, then gave up and turned back. Reena, though free, had not left, her hand on Paige's arm.

She was sharing his fate, but Paige said nothing. What did it mean now? Tal would win, take them below, and warn King Luth against the campaign in the upper world, convinced now that Paige had planned a trap.

PAIGE cursed, and looked up at the garnet speck of Mars, that seemed like a mocking red eye. Faintly, through the roar of battle, he heard a low drone from the opposite direction. The beating of a propeller, lifting an Earth plane into the air. Sparky had found the plane intact. He was off to have his last lick at the Martians. He would not let mocking fate make him a deserter of duty a fourth time.

Paige reviled fate, and wished he were with Sparky.

The red eye of Mars glared down gloatingly on the battle. Slowly Tal was winning out, driving the Dorthians back into the cave-mouth where he would gain strategic positions and cut them to pieces.

"Dr. Aronson," Paige said again, "we've failed."

A low hissing drone snaked through the upper air.

Paige started, ears alert. Was it the drone of a propeller, or the throbbing beat of rocket jets?

It was both!

An Earth plane streaked across the moon's face. Hounding after it drummed a fleet of seven Martian ships, rocket jets flaming brilliantly. The lone Earth ship shot up suddenly, in a power-climb. Daringly, madly, it swooped over the Martian ships, raking them with machine-gun fire. A wasp against seven deadly eagles. One Martian ship swung out of line wobbled, and then flopped Earthward in flames.

Again the Earth plane swooped, guns chattering. Another Martian ship plummeted down like a comet. Paige stared in disbelief. It was the most amazing exhibition of flying and fighting he had ever thought possible. Who could that wizard flyer be?

A gasp tore from Paige's throat.

"Sparky!" he screamed. "Give 'em hell, Sparky!"

It was all clear now. Sparky had flown to the nearest Martian base, probably at Cincinnati. Charged down from the sky speaking a challenge with bullets. The Martian fleet had given chase. By some miracle, Sparky had outflown the superior Martian craft, led them here.

"Give 'em hell, Sparky!" Paige shrieked again.

But the end was inevitable. The Martian ships spread, darted at him from all angles. Three Martian neutron-beams struck at the same time. The little Earth ship changed into a riddled, broken bit of debris that rained to the ground.

"That was Sparky?" gasped Aronson, horrified. "He's dead."

"Yes, but he died happy," Paige said. "He got in his last lick at the Martians."

"Brave little man," murmured Reena. "But why did he do it?"

Paige knew why. His eyes glowed in anticipation.

Now the remaining five Martian ships circled, observing. Then suddenly a singing, iridescent beam stabbed down. Where it struck, a geyser of dirt and rock shot up. The beam ran along the edge of the

Uldornian forces, plowing a furrow of destruction. It seemed like a warning, to discontinue whatever was being done below.

The battle between the albino forces died. Amazed at what the unknown third power had done, a temporary truce sprang into being. One of the Martian ships spiraled lower and landed, a hundred yards back of the Uldornians.

Paige trembled. For this Sparky had given his life. To bring the Martians here quickly, while they were still pondering the absence of the missing patrol ship. And before the albino battle had ended all chance of Martian interference.

Tal came running up from the battle-front, pausing beside Paige. They all watched as the cabin of the strange craft opened and figures emerged. They strode forward, a dozen forms with glinting weapons in their hands.

AS they drew near, the moonlight revealed them clearly. A concerted gasp arose from the throats of Tal and all the albino men who could see. Even Dr. Aronson gulped, for he had never seen the Martians before.

They were tall, thick-chested, thin-legged, built in the travesty of man. They were ridiculously like old men who had not exercised properly. But their faces inspired horror. They were not human, by any stretch of imagination. Large eyes with red irises, flat bestial noses, and lips from which protruded fang-like teeth, topped by a feathery wool of dank green hair. Evolution had given them a large brain-case, larger than man's, but something had placed the stamp of utter pitilessness in their features. They carried with them, as they neared, an aura of merciless cruelty.

Paige shuddered, as well as the others, though the sight of these other-worldly creatures was nothing new to him.

The foremost Martian spoke, in a piping, precise English.

"You destroyed our patrol ship, this afternoon. You sent one of your own ships to raid our nearest base. Like other groups of earthlings, you have come down from the hills, most likely, and are armed. You have been hidden back there practicing battle tactics. You bravely but foolishly think of fighting against us to the last?"

It was a question. Paige thought rapidly. Whispering swiftly to Aronson to translate for the benefit of the albino men, he answered the Martian commander.

"Yes. What else would you have us do?"

The Martian made a magnanimous gesture.

"A few weeks ago we would have exterminated you without wasting time talking first. But our High Command has instituted a new order. All humans left are given the choice, if they surrender, to become slaves!"

Paige gave the air of one considering the offer. Back of him the albino men were utterly silent, hushed. Then Paige asked another question.

"We have been isolated from the rest of Earth. How many humans are left?"

It tore his soul to bring it out, but he had to know. And he wanted the albino men to hear.

"About one-half of the former Earth population," returned the Martian expressionlessly. "We have killed off a billion of you humans. The remaining we offer life, as our slaves."

TAL an dthe nearby albino men stood stunned, as Aronson's whispered translation came to them. The whisper grew and rustled through all the ranks behind. It leaped the gap between the Uldornian and Dorthian forces, those that had lately been about to engage in hand-to-hand struggle.

A billion humans destroyed!

The crushing revelation seemed to sweep over the scene like a living force.

"Is there any resistance in other parts of Earth?" Paige pursued.

The Martian answered without hesitation, with the air of one who does not need to hide anything.

"Yes, in various sectors, your people hold out. It is almost admirable. But stupid. They are doomed. West of your Rockies, fifty million people battle us. We are daily bombing all their cities and pushing back their armies."

He made a sharp gesture. "That is all. What is your decision?"

The answer did not come from Evan Paige. It came from Tal Rithor.

He had been standing like a statue, nostrils flaring, his breath coming in short, hard gasps. Deliberately, his arm flung up and then down.

The battle signal!

Almost in one volley, the weapons of the albino men spoke, as though only willpower had kept them before from shooting down the repulsive monsters at first sight. The attack was totally unexpected, to the confident Martians. Six of them fell corpses. The other six fired back, with their rustling kill-beams. In another moment they, too, fell dead.

Retaliation came instantly, from above. Broad beams of explosive neutrons hurtled down, cutting swaths of death among the albino men.

Paige leaned back against the rock, sick. He thought it was all over. But Tal was leaping back and forth, yelling commands. Cannon swiveled into the sky. A weapon spoke back at least the equal of the Martians'. The enemy, not given to night fighting, were aiming blind. The albino men, in their element under dim radiation, found their marks.

Four of the Martian ships crashed down in flames. One drummed away, to call for stronger forces. Soon a mighty fleet would wing back, to wipe out the defiant band of humans at the mouth of Mammoth Cave!

Paige imparted that knowledge to Tal. And he went on, explaining the truth of what Earth's upper surface was. If Reena had finally understood, he must, too.

Tal stood listening.

The dawn of understanding came into his eyes. He said nothing. Quietly he came forward and struck off their chains himself. A vast hush had come over the albino men. Tal strode toward the month of Mammoth Cave, toward the Dorthian forces. Halfway there he stopped, threw down his weapons. Then he spoke, his voice ringing through the still night air.

"Soldiers of Dorthia and Uldorn! We can no longer fight each other. This is a strange, new world up here—one we didn't know existed, inhabited by another part of the human race. But it *belongs* to the human race; not to monsters from another world! Where or what that other world is or can be, I'm not yet sure. I only know that people like us are threatened with extinction, up here. I will speak now for King Luth and say that all the army and forces of Uldorn pledge themselves to fight the alien invaders!"

As though it had been rehearsed, the Dorthian commander came forward, throwing his arms at Tal's feet.

"I say the same in behalf of the Kal of Dorthia!"

And the cheer that rose from all the men's throaths was hurled out in defiance to the unspeakable enemy from another world.

Paige knew that the greatest moment in the history of the human race was enacting itself.

A buried portion of mankind grown great and strong, would take up the crusade. Would fight for a world they had never seen before, but which was theirs by heritage. Already, like on echo from the future, Paige could hear the tramp, tramp, tramp of marching feet, as the legions from below came into the light of the sun.

An army millions upon millions strong would arise out of the depths to confront and drive back the Martians who thought their bloody task done. The Martians would sneer at first, as they wiped out the first few regiments, till the albino army learned of the new conditions and warfare.

Tramp, tramp, tramp!

The Earth itself would shake with their heavy tread, as her sons from below stormed up, to win back a world.

Tramp, tramp, tramp!

And leading this army of revenge from below would be the ghost of Sparky Donovan. He had deserted again—deserted life. But in death itself he would be getting in his lick at the Martians again.

Tal Rithor now stood before Paige and Reena, in each other's arms, and he smiled wanly, but sincerely. This was a new Tal, who had crawled out of the shell of the old. The Tal who had viewed the upper world and knew that it was good.

"You two will be a token, in marriage, of the union of mankind above and below," he said.

He added simply, "We will win."

"We will win," agreed Evan Paige.



THE CASTAWAY

***By* GEORGE DANZELL**

Who was this bearded castaway of space? Some said he was Jonah. Others thought him a long-lost, mad scientist. But Lieutenant Brait knew him by a name that was old when the world was young.

THERE was an ad in the classified columns of this week's *Spaceways Weekly*. It asked for information concerning the whereabouts of one "Paul Moran, last known to have taken off from Long Island Spaceport for parts unlogged." Captain McNeally drew the notice to my attention. He said, "Look at this, Brait.

Wasn't Moran the chap we picked up in the asteroids? It seems to me I remember—"

"You should," I told him. "You see his name twice every shuttle, engraved on cold steel. And you can be thankful for that. But I don't think he'll answer this ad. I don't think they'll ever hear from him."

"That," scoffed the Shipper, "is nonsense! Do you realize what this means, Brait? This ad was inserted by the Government Patent Office. There's a fortune waiting for Mr. Moran back on Earth. when he sees this—"

"A fortune waiting," I said softly, "when and if he ever sees it. But I wonder, Skipper. I wonder."

WE were about three thousand miles north, west and loft of Ceres when we first sighted him. I remember that well, because I was on the Bridge, and our Sparks, Toby Frisch, had just handed me a free clearance report from the space commander of that planetoid.

I read it and chuckled. I said, "Sparks, this bit of transcription is a masterpiece. Nobody expects a radioman to be good-looking or have brains, but blue space above, man, your spelling and grammar—"

"Leave my relatives," said Sparks stiffly, "out of this. Is the message O. Q. or ain't it?"

"Yes," I told him, "with a light sprinkling of no. Sometimes I wish we had a good operator aboard the *Antigone*. Like one of those Donovan brothers, for instance."

"Them guys!" sniffed Sparks. "Too wise for their britches, both of 'em. I'm a bug-pounder, not a joke-book. If it's smart cracks you want, why don't you buy an audio?"

It was at this point that Lt. Russ Bartlett, First Mate of our ship, who had been shooting the azimuth through the perilens, turned and waved to me excitedly.

"Brait, take a look! Quick! There's a man down below! On one of the minor asteroids!"

I said, "A joke, Bartlett? You'd better check the alignment of that perilens. That's the Man in the Moon you see."

Gunner McCoy, Bartlett's staunchest friend and admirer, looked up from the rotor port, wrinkled his leathery, space-toughed cheeks into a frown, and squirted mekel-juice at a distant gobboon.

"Mebbe you better look, Mr. Brait," he said. "If Russ says there's a man there, then there's a man there."

So I looked. And to look was to act. I cut in my intercommunicating unit and bawled a stop hypo order to Chief Lester in the engine room below. Bartlett was right. There was a single, bulger-clad figure sprawled on the craggy rock of a tiny asteroid hurtling beneath us. A man who lay there quietly, did not rise, did not wave, gave no sign of noticing our approach even when I dropped the *Antigone* down toward the spatial island.

Bartlett, peering through the duplicate lens, said, "Dead, Brait. He must have cracked up. He's not moving."

But there was no wrecked spaceship anywhere around. I said, "We'll know in a few minutes." And then the Skipper burst into the bridge, startled and curious. "Something haywire, boys? Here, I'll take over."

He was a good man, Cap McNeally. A hardened spacehound, canny and wise to the ways of the void, always on deck in moments of emergency. That's why the IPS, the Corporation for which we work, had placed him in command of the *Antigone,* finest and fastest ship in the fleet.

But I calmed his rotors. "Everything O. Q., sir," I told him. "We're standing by to take on a space-wrecked sailor. I think."

My guess was right. A few minutes later we threw out a grapple, space-anchored the *Aunty,* and a rescue party landed on the asteroid. They brought back with them a sad looking specimen of the genus *Homo sapiens.* His cheeks were drained and sunken beneath a bristling, unkempt beard; his skin was blistered frightfully from long exposure to solars and cosmics; his limbs were so feeble that he couldn't walk unaided. He had to be carried.

Someone unscrewed his face-port for him. He drew a long, deep breath of the pure *Antigone* air. His wan eyes lighted dimly and he spoke in a voice that was a thin husk of sound.

"Thank you, gentlemen. I had hoped

that at last I might—But you meant well, I suppose."

Which was, I thought at the time, a damned strange speech of gratitude. But I had no time to answer. For his knees suddenly buckled beneath him, his eyes closed. Had it not been for the friendly hands that supported him, he would have pitched forward on his face.

Cap McNeally snapped, "Sick-bay! Snap it up, you lubbers! The man's in bad shape. Out on his feet, cold!"

Sparks whispered, "Gosh, he looks like a corpus!" as the sailors bore our unexpected passenger away. I stared at him disgustedly.

"Corpse." I said.

"Huh?" said Sparks.

"Corpse!" I repeated. "Corpse!"

"You," suggested Sparks, "oughta take somethin' for that indigestion, 'Lootenant. My sister had it. It made her a physical reek."

It's against the rules for a Second Mate to punch a radioman. So I kicked him. There are limits.

THAT was our first meeting with the mysterious Paul Moran. We didn't know his name then, of course. We learned that several days later. After Doc Jurnegan, our medico, had coaxed, bulldozed and sulfanilamided him back off the brink of the dark and nasty.

Doc was the first to tag Moran with the adjective we all, eventually, accepted.

"It's the damnedest thing," he told me, "I've ever seen. Brait, I'll swear on a pile of prescriptions that he didn't have one chance in a million of pulling through. But he's still alive!

"By rights, he should have been dead two weeks before we found him. Do you know he was on that asteroid five solid weeks? Without food. With only one container of water. With the oxygen reserve in his tank practically exhausted!

"And his condition—" Jurnegan shook his head uncomprehendingly. "Deplorable! He was dessicated, undernourished, fouled from weeks in a bulger. Acute cyanosis alone should have killed him. But—"

I said, "The will-to-live, Doc. It's the determining factor in many a borderline case. I've heard of men with holes in their heads you could drive a stratoplane through who simply refused to—"

"That's just it," said Jurnegan. "He *wants* to die! He refused to take food. I had to feed him intravenously and force him to drink. But in spite of his physical and mental condition, he still lives. It—it's mysterious, Brait!"

So I went in to visit our strange passenger.

He wasn't a bad looking chap, now that his whiskers had been plowed. Thin, of course; hollow of cheek and eye. His skin was sallow, faintly olive; the contours of his head long and narrow, short-indexed. He was a typical Mediterannean, if what my profs taught me is right. Medium stature, small-boned, thin, tapering fingers. Crisp, oily hair, black as space.

I said, "Well, you look like a new man!" —which he did, and, "You're looking fine!" I said—which he wasn't.

He turned his head slowly, studied me with grave, questioning eyes. His voice was faint, but low and pleasing.

"You are Mr. Brait, the Second Mate? I believe I have you to thank for having rescued me?"

"That's all right," I told him.

"Why," he interrupted gently, "did you do it?"

I said, "Oh, come now! You've got to perk up! You get a little flesh on your bones and you'll feel better."

But he went on, as though not hearing my words, "It was a chance. The best chance I've had for years—a thousand years—and you took it from me. Out there I might have found peace at last. The power cannot—it *must* not—extend into the depths of space."

HIS voice had risen; there was a light of madness, of strange, savage intensity in his eyes. I felt the little hairs on the back of my neck pringling. I knew, now, that the man had not come unscathed through his experience. He was space-crazy. Wildly, desperately so. I said, in what I hoped was a soothing voice,

"Now, take it easy, Mr.—er—Moran, isn't it?"

The ghost of a smile touched his lips, and his body became less tense. He said wearily, "Moran—yes. Or Ader. Or Cart—Oh, anything you choose. It hardly

seems important any more. I've had so many, many names."

That wasn't exactly encouraging. But at least he was quieter now. And I had to know a few things about him to put in the ship's log. I asked, "How did you get on that asteroid, Moran? Were you space-wrecked? If so, what was the name of your craft? The authorities will want to know."

He answered, almost mockingly, "I was marooned."

"Marooned! But—but that's criminal! Who did it? We'll have them picked up and punished!"

"You'll do nothing of the sort. They marooned me on that asteroid because I deserved it, and I respect and thank them for it!" His voice was rising again; higher, shriller. "I thank them, do you hear? I bless them, a hundred, thousand, million times. Though their effort was in vain. I was, and am, a Jonah. A Jonah, Jonah, *Jonah!*"

He sat bolt upright in bed, screaming the word defiantly. Doc Jurnegan raced in, glanced at me reproachfully and took his patient in hand. "You'd better go, Brait," he suggested.

So I left. The sweat on my forehead was damp and cold. I needed a drink.

When I told Cap McNeally of my experience, he nodded soberly.

"I know, Brait. I saw him before you did. And he acted just as loony toward me. Warned me he was a Jonah—"

"I'm not superstitious," I interrupted, "but there *are* such things as Jonahs. Men whose very presence aboard a spaceship seems to cause trouble, dissention, disaster. You remember that Venusian blaster on the *Goddard III?* The survivors always swore he caused the crack-up."

"Moran's case," frowned the skipper, "is more than just superstition. He told me that he never wanted to see Earth again. When I told him that was too bad, that we were headed for Earth right now, he warned me solemnly that he'd do everything in his power to prevent our getting there. So what do you think of that?"

"I think," I said glumly, "he's nuts! And if we pay any attention to him, we'll all be nuts, too. Well, I've got to go, Cap. I've got to check the shield generators before we go busting into Earth's H-layer."

And I left.

WELL, I was busy for the next four days on my job. It was a plenty important job, and had to be done carefully. The H-layer of the planets—the Kennelly-Heaviside layer—is a supertensioned field of force similar in composition to the corona of a star. A wide swath of ionized gas with high potential, serving as a shield against the murderous Q- and ultra-violet rays that emanate from solar bodies.

But the H-layer is a barrier as well as a shield. The first space-flight experimenters learned that, and the knowledge cost them their lives. For their craft hit the H-layer unguarded; and where had been a glistening ship, now was pitted, blackened metal; where had been life, now there was charred carbon.

Now all spaceships were equipped with shield generators. They were "generators" by courtesy only; actually they were huge condensers fed by cable lines tied at intervals to the hull plates. The theory was that as the craft plunged into and through the H-layer, these condensers would absorb the excess potential, thus allowing the ship to pass through unharmed.

And it worked swell, most of the time. Oh, every year a few ships would get theirs—would blow out in a blue wreath of coruscating flame—but for the most part the trip was safe enough. Except, of course, when a condenser was in bad condition. Which was why I was giving ours a check and double check.

Still, I could never rid myself of a queasy moment when we hit that blanket of spark-happy ionization. Particularly when a planet was at aphelion as Earth was now. Because at such times the H-layer was more highly activated than usual.

And to tell the truth, I wasn't satisfied with the way my work was going. First I hit my thumb with a monkey-wrench. It didn't hurt the wrench, but the thumb turned pale mauve and throbbed like a sixteen-year-old kid's pulse on his first hayride.

Then I lost a brass collar off the hull-brace, and since we didn't carry a reserve stock I had to ask Chief Lester to make me one. By the time that was ready, I'd

busted a .44 coil cable lock, and had to jerry-rig a substitute.

Oh, it was a headache! But I wasn't the only guy on board the *Aunty* who was having troubles. Slops raised a howl to high heaven because his stove went on the squeegee. Gunner McCoy stalked into the officer's mess one afternoon demanding what such-and-such so-and-so had stripped the gears of his pet rotor-gun. Sparks burned out three vacuum tubes in one day, breaking contact with all transmitting stations and almost causing us to crack up on a rogue asteroid. Even Cap McNeally was visited by the plague. He came wailing to me, on the bridge, that the refrigeration units in the No. 3 storage bin had broken down.

"—and we've lost a whole binfull of *clab*, Brait! Worth at least six thousand credits on Earth. The Corporation will be mad as hell."

"That's tough," I said, "but there's nothing we can do about it. It wasn't your fault."

He eyed me curiously. "Brait—" he said.

"Yes, Cap?"

"I've been wondering—do you think there could be anything in what Moran said? About him being a—a—"

"Jonah?" I'd been thinking the same thing myself. "I don't know, Skipper. I wouldn't say yes, and I wouldn't say no. But there's no doubt about it, things have been going haywire ever since we picked him up. I'll be glad when he lifts gravs off the *Aunty*."

Cap said petulantly, "Of course it's just nonsense. Bad luck doesn't hang around one man like that. It's against the law of averages. Still, I wish you'd sort of keep an eye on him for the next three days, Brait. Till we land on Earth. I've got a notion—"

"So has Earth," I grinned. "Five of 'em. Atlantic, Pacific, Indian and the two Etceteras. What's yours?"

"It might," frowned the skipper. "Be sabotage. He said he'd do everything in his power to prevent our reaching Earth. And he's up and around now."

"If you think that," I suggested, "why don't you shove him in the clink, just to make sure?"

"Can't do it. Because I've no *proof* he's responsible for these occurrences, and besides, a rescued passenger is entitled to the courtesy of the ship."

SO that's how I assumed, in addition to the rest of my duties, the job of watch-dogging the mysterious Paul Moran. As Cap McNeally had said, Moran was up and about now. He had made what Doc Jurnegan claimed was the swiftest recovery in the annals of medicine. He still looked like a skeleton in search of a square meal. But there was sanity in his eyes. If not always in his speech. Like that afternoon in Sparks' radio turret, for instance.

We had been talking, Sparks and I, about space-flight. What a great thing it was. How, only in its infancy, it was already changing man's outlook, widening the borders of man's domain, creating a newer, greater universe.

"We got," Sparks said, "reason to be proud of ourselves. Gee, I was readin' in the library—"

"You," I interrupted wonderingly, "can read?"

"Comets to you, Lootenant!" sniffed Sparks. "As I was sayin' before I was so rudely ruptured, I was readin' in the library some old books from the Twentieth Century. Just about a hundred an' fifty years old, mind you! They had the craziest ideas about what men would find on other planets, if an' when they ever got there. Flame-men, an' robots, an' all sorts of things.

"Nothin' like what we actually found. 'Course, we shouldn't laugh at 'em too much. They had no way of knowin'. We're the first people ever traveled in space."

"No!" said Moran.

Sparks said patiently, "Well, I didn't mean us here in this room. Of course we ain't. But I mean the people of our time."

"And I still say," said Moran gravely, "no! Man in all ages is a creature of conceit, self-pride, self-glorification. There was space-flight long before you lived, Sparks. A race, long dead now, from a neighbor planet."

I said gently, "You're thinking of those pyramids found on Venus and Mars, Moran? I know that's a puzzler to modern science. And I've read several theo-

ries regarding their builders. But most authorities agree that their mere presence does not necessarily imply the existence of a single race of engineers. The pyramid is a fundamental structural form. Any intelligent race—"

"Man," said Moran almost sadly. "Man the dreamer; Man the doubter. No, Lieutenant, I am not speaking of theories, now. I am speaking of tales I've heard; accounts I've read in archives long molded into dust. At least three times in the past have civilized races spanned the void. It was the dying Martian race that first achieved space-flight. They found Venus a rank and stinking jungle, but on Earth certain of them set up their new abode." He smiled quietly. "And reverted to savagery, as is always the case when civilized men, removed from the source of their culture, find themselves face to face with stark reality.

"Then it was the Moon-creatures who fled their airless world, spanned the distance to nearby earth."

I said, "That's an interesting thought, Moran. It explains the coloration of the races of man, doesn't it? I'd like to read that book you mentioned. Where can I get it?"

He shook his head sadly.

"You can't, Lt. Brait. The last copy of it was destroyed more than twelve centuries ago. Simon Magnus was the last man to read it as I remember. I loaned it to him—"

He stopped abruptly. But Sparks' eyes were plate-sized and incredulous. "—*you* loaned it to him?"

I spun on Sparks, angry. Jurnegan had told us to humor Moran, help him to a complete recovery. I didn't approve of this, not a little bit. I snapped, "That'll do, Sparks! Good Lord, man—What's the matter, Moran?"

For suddenly his face had paled, his eyes widened in horror, and he was backing away from me. He thrust out a trembling hand, gasped hoarsely, "Have a care, Brait! 'Thou shalt not take the name of the Lord, thy God, in vain—'!"

Then he fled; his running footsteps clattered down the ramp, and the echoes were strangely disturbing. Sparks stared after him, then made a circular motion at his temple.

"Nuts!" he said. "Crazy as a loon, Lootenant."

OH, he was an odd one, that Moran. Those next days are somehow garbled in my mind. They were so full of incident that now, looking back upon them, I can hardly distinguish between that which actually *was*, and that which an active imagination conjured for me out of fancy.

This I do know—it was the worst trip I've ever experienced in the *Antigone* or any other ship. Something was always wrong. Lt. Russ Bartlett, whose mind is as accurate as the cogs of a computing machine, discovered to his dismay that he had made an error in calculation; that at our present rate of speed we would miss Earth entirely and plunge Sunward at a rate that would destroy us all. He discovered that by sheer accident, and just in time to scream a hasty, "Cut hypos!" to the engine room, else I wouldn't be here to tell it. Then there was that mysterious occurrence in the galley. Our cook had a pet cat, and if it weren't for his habit of feeding the pussy before he fed the crew, half of us would be stiff now. Because the cat slopped up its dinner and forthwith proceeded to give up all nine of its lives simultaneously. Ptomaine, from faulty food tins. The first time such a thing had happened in more than forty years!

You couldn't say Moran was behind either of these near-disasters. For I was dogging his footsteps; I'll take my oath he was not involved. Physically, that is. But they say a Jonah's curse works even though the Jonah takes no actual part.

Oh, he was an odd one, that Moran. For instance, the time Sparks' selenium plate blew out. It was Moran who got permission to use the machine shop, construct a substitute out of a uranoid-steel atmochamber. We used that freak audio throughout the trip, then replaced it with a standard one when we reached Earth. Like dopes! Because two years later that screwball First Mate of the *Saturn* "invented" a uranium time-speech-trap exactly like the one Moran made us. He earned a quarter million credits from it. Imagine!

Then there was the time, as we were

approaching the Lunar outpost, that our calculating machine jammed. Lieutenant Bartlett and Cap McNeally were in a dither trying to figure the approach velocity. It's a fifteen-minute job for the machine; a six-hour job for a man's brain. But Moran, who happened by, glanced casually at the declension chart, said, "Cut to forty-three at 3.05 Earth Standard, Captain. Maintain full speed for point three five parsecs, alter declension to north one, loft seven, fire fore jets twice—"

Having no better idea, McNeally did as Moran suggested. And we warped past the Moon oh-oh-oh on trajectory!

WHICH put us within scant hours of Earth's H-layer. And which also roused in me the realization that the mysterious Paul Moran was more than the ordinary space-sailor he pretended to be. Maybe I'm snoopy, I don't know. Anyway, I went to the radio room. I told Sparks grimly, "You and I are going to find out just who or what this Moran guy is. Send a message, Sparks. To Fred Bender, at Long Island Spaceport. Tell him to find out if there's a scientist missing who answers to this description. Five feet, seven and a half inches; a hundred and twenty-five pounds, dark hair, brown eyes—"

The relay of that description and the subsequent reply took longer than I had anticipated. That's why Sparks and I were among the last to learn of the new trouble. We didn't learn until, excited, we burst onto the bridge, confronted the skipper with our information.

"Look, Skipper!" I yelled. "No wonder 'Moran' was able to fix Sparks' radio and set your course! Do you—"

And the Captain raised haggard eyes to me.

"Brait, where have you been? I've been audioing all over the ship for you."

"In Sparks' cabin. Listen, though. Moran is—"

"I don't care," said the skipper wearily, "who he is. And in a little while, nobody else will, either. Your check-up, Mr. Brait, was a miserable failure! We are only an hour and a half out of the H-layer—and the shield generators refuse to function!"

I just stared at him for a minute. When I caught my breath, there was only enough of it for one word.

"Impossible!"

"Impossible, maybe," acknowledged the First Mate, "but unfortunately, Don, the Captain's right. Three lead-in cables are broken, the stripping is off the condenser."

"But—but everything was in perfect order an hour ago! I don't understand! Yes, I do! Moran! He said he'd destroy us all if he got a chance! Skipper, there's the answer. He's done it. The madman—"

Then there was a mirthful chuckle in the doorway, and Moran was standing there looking at us, his thin lips wide in a smile.

"You're right, Brait. I *did* do it. But I'm not a madman. I'm a happy man. The happiest man who ever lived!" His eyes lighted triumphantly; he stretched his arms above his head in a great, yearning gesture. "Soon will come freedom! The great, everlasting freedom of death."

"Get him!" said the Skipper succinctly. Gunner McCoy lumbered forward, his long, hairy arms encircled Moran's body. The Skipper pawed his graying thatch. "This is no time for reproaches, Mr. Brait. I told you to guard this man; for some reason you failed to do so. But now our problem is to repair the damage he has done. Or else—"

His pause was significant. But Moran's quiet, mocking laughter persisted.

"It is useless, Captain. Not in hours, no, not in weeks, will you repair the damage. Don't you see—" There was a feverish light in his eyes, a shuddering vibrancy in his voice. "Don't you see that I bring you the greatest of all boons known to man?

"Death! Wonderful, blissful death! Death that I have sought so long . . . so hopelessly."

Those were the last words I heard for some time. I dashed from the room, Bartlett, Sparks and McCoy at my heels. We picked up the Chief Engineer. We covered the *Antigone* from stem to stern. And our worst fears were realized. It was no use. The damage Moran had done was irreparable.

Russ Bartlett said, "There's only one way out. We mustn't try to penetrate the

Heaviside layer. We must shift trajectory, pass Earth and remain in space until we get the shield generator operating again."

And Chief Lester said somberly, "Have you forgotten the trajectory you planned, Lieutenant Bartlett?"

"The trajectory?"

"I thought it was unusual," rumbled the engineer, "when you called it down to me. It's paper-thin, balanced on a knife-edge between counter-gravitations. If we try to shift course now, we'll tear the ship into shreds!"

I knew, now, why Moran had come up with such a ready answer when the computer failed. He had planned well. He had deliberately forced us into this trajectory from which there was no escape.

BACK on the bridge, we found Captain McNeally pacing the deck like a caged cat. Moran was silent, watchful intent, with an unholy gleam of justification lighting his curious eyes. The skipper looked up hopefully as we entered.

"Well, gentlemen?"

Bartlett shook his head.

McNeally was silent for a long moment. His glance roved the smart, glistening interior of the *Antigone's* control room. I knew exactly what he was thinking. It was too bad that this smooth perfection, this finest ship built by master craftsmen, should become a brief, winking flame in the atmospheric borders of Earth.

And it was tough that we must all go out together like this. Through no fault of our own. Through the machinations of a space-mad castaway. He turned to me. "Lieutenant Brait, you and Sparks will go to the radio turret. Send a complete report to the Earth authorities. Tell them—" He gulped. "Tell them why the —the *Antigone* will not come in."

I said, "Aye, aye, sir!" mechanically, and started for the door. But Sparks stopped me.

"Ain't you gonna tell 'em what we learned?"

"Eh?"

"About *him?*"

He jerked his head toward 'Moran'.

"It doesn't really make any difference now," I said. "But—" I suppose my voice was scornful. There was scorn and bitterness in my heart. "They might as well know that the man who has condemned us all to death is—or was—one of Earth's greatest scientists. Had he not become a raving lunatic his genius could have stemmed this disaster."

McNeally said, "What's that, Lieutenant? What do you mean?"

"I mean this man's name is not 'Paul Moran'—"

"Names," murmured Moran gently. "What difference does a name make? When one has had thousands of names."

"His name," I continued, "is John Cartaphilus!"

Bartlett said, "Cartaphilus!" In a leap he was at our strange guest's side, his voice eager. "Then he will—he *must*—help us!

"Cartaphilus, listen to me! Of all men, only you have the genius to devise some way of escaping this peril! You've been mad, sir! Insane from your privations! But now I beg that you cast aside this madness, come to our rescue!"

Moran—or Cartaphilus—brushed his hand aside. A dreamy look was in his eyes.

"Death at last!" he whispered. "Oh, sweet boon of mankind—death! I who have suffered so long, waited such a long time—"

"Can't you hear me, man? Snap out of it! Time is growing short. In a half hour, maybe less, we'll nose into the H-layer. And then—Please, sir!"

But there was no reply. Captain McNeally looked at me uncertainly. "Are you sure, Brait?"

"Positive. I forwarded a description to Bender at L. I. He said Cartaphilus has been missing for a year and a half. He fled Earth because of a scandal. It seems—"

"Never mind that now." McNeally confronted the insane scientist. "Mr. Cartaphilus, you must help us out of this jam! We're not thinking only of ourselves, but of the mothers and children waiting for us on Earth. And of the future of space-travel. If the *Antigone*, the finest ship ever built, blows out in the H-layer, it will strike a heavy blow at all astronavigation. Help us, sir! For Heaven's sake—"

Cartaphilus spoke suddenly, sharply.

"Don't say that!"

"Only Heaven can save us now," said

McNeally simply, "if you won't. It's our only hope. May the Lord help us if you—"

"Don't! The strange, thin man screamed the word. Suddenly he buried his face in his hands, and his words were an incoherent babble of torment. "Don't you see what you're doing? Man, have you no pity?"

He raised wide, tortured eyes. "The endlessness of time—" he whispered. "But I thought that, free of Earth, lost in the depths of space, I might at last find peace. But now you call upon me to save you in His name.

"I won't do it! I won't! The power cannot force me, here in the void. Two thousand years . . . No! No!"

McNEALLY stepped back, torn between dread and doubt. He shook his head at us. "It's no use. He's completely mad."

Then Russ Bartlett cried, "Wait! *Listen!*"

For Cartaphilus, his face worn and aged, had bowed his head as though surrendering to forces greater than his will-to-die. And he was droning in a drab, lack-lustre voice, "Tell the engineer to reverse the polarity of the alternate hypatomic motors. Transmit the counter electromotive force helically through the forward coils. Use full power. Keep all motors running at top speed. Cut out the intercommunicating and lighting systems; there must be no D.C. current in operation anywhere on the ship. The cross-currents will—"

Chief Engineer Lester's face was a masque of blank dismay. He husked, "A hysteresis bloc! It might work. Nobody ever thought of it before."

"What do you mean?" That was Cap McNeally.

"His suggestion. Heterodyning the web-coils, so we'll counter the H-layer radiation with an alternating current of our own. It's just about one chance in a million!"

"Then take that chance!" cried the skipper. "Try it! Do as he says. And, for God's sake, man, *hurry!*"

Cartaphilus, his eyes drained of all expression, rose sluggishly. Once more he spoke, faintly. "It will work," he said. "It will work, and I have failed again. And all because I would not let Him rest . . ."

His voice broke in a great, wrenching sob. Then he lurched from the control room like a broken thing.

I NEVER saw him again. No one aboard the *Antigone* ever saw him again. For the next hour we were in a turmoil, rearranging the electrical units of the ship as Cartaphilus had told us. We finished our task just in time; scant seconds after we had thrown on the power we nosed into the web-like field of force which is the H-layer.

It was a breathless moment. Despite our efforts, there was not a man of us but expected a brief, brilliant instant of horror —then oblivion. But we were as wrong as Cartaphilus had been right. There was a jolt as our forcefield met that of Earth's shield; the permalloy hull of the ship sang and hummed and glowed cherry-red under the impact of that terrific electro-motive strain, but we slipped through the barrier with greater ease than ever had any ship using the old style shield generators.

In our jubilation we quite forgot the mad scientist whose strange, last-minute change of mind had saved our lives. We landed. And sometime between the moment of landing and the moment when we remembered our passenger, he fled. Disappeared completely from the ship and from our lives.

Cap McNeally was nothing if not a square-shooter. He refused to take credit for the invention that had brought us through the H-layer. The patent rights were taken out in the name of our deranged passenger. The "Moran H-penetrant" it is called. All spaceships used it until just recently; until Cap Hawkins of the *Andromeda* and the Venusian scientist, Jar Farges, discovered Ampies could be used as H-layer shields.

But afterward, Cap McNeally came to me, wondering.

"Why should he have wanted to die, Brait? I can't understand it. A man like John Cartaphilus; wealthy, intelligent, respected—was he really mad, do you think?"

I hesitated. I, too, had been wondering about that. I had gone so far as to look up the life history of the mad scientist

I had found several curious things. No man knew when, or where, John Cartaphilus had been born. All agreed that he was "remarkably youthful" in appearance. It was rumored that he had outlived a wife married in youth; that she had been an elderly woman when she died.

I said, "I told you there had been a scandal in his life, recently, Skipper. It concerned a friend of his, a worker in one of his shops.

"Cartaphilus was, and is, a genius, but he has a reputation for driving his men too hard. They say that on this occasion, seeking the answer to some problem that evaded him, he forced this assistant to labor for weeks, begrudging him even a few hours sleep each night.

"On the eve of the solution of the problem, this worker came to him, nervous, ragged, exhausted, begging for a brief respite. Claiming he was sick with overwork and fatigue. But John Cartaphilus insisted, impatiently, there was no time for rest. He ordered the man to get about his work.

"The job was completed. But the friend died. The doctors said it was a pure case of exhaustion. When he heard this, Cartaphilus' brain snapped. He blamed himself for the man's death, fled Earth. He became—or so we may believe—the wandering spaceman we found in the asteroids."

Cap McNeally frowned.

"Do you believe that story, Brait?"

I started to say no. I started to tell the skipper something else I had discovered while probing into the life history of John Cartaphilus. Something that, to my mind at least, more fully explained the oddness of our erstwhile passenger.

It was an old legend I had run across. The queer story of a man with many names ("I have had so many names," Moran had said) who wandered endlessly about the Earth, perhaps the universe now, simply because he had not let another rest for a moment on his doorsill.

Sometimes this man had been known as Carthaphilus. He had also been known as Juan Espera en Dios, as Ahasverus, and as Butta Deus. The Parisian gazette, "Turkish Spy," had in 1644 A.D. reported his presence in that city traveling under the name of "Paul Marrane." But men in general knew him by a more descriptive name. The Wandering Jew. The Eternal Jew . . .

But I did not tell Cap McNeally this. After all, it was a fanciful thought. And surely Moran—or Marrane, or Carthaphilus—was mad when he claimed to have met and talked with Simon Magnus twelve hundred years ago?

Anyway, when we saw that ad in the classified columns of this week's *Spaceways Weekly,* and McNeally claimed Moran would return to claim his reward, it raised again the question in my mind.

Will he return? Or will he find, at last, whatever peace awaits him out there? In the vast emptiness of space, where the power cannot — must not — extend? I wonder . . .

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ATOM OF DEATH

By **ROSS ROCKLYNNE**

The Earthling killer planned too well! An atom was to have been his alibi . . . that same atom was his judge and executioner.

FOWLER BARRY curled his lips into a thin smile of satisfaction as he pushed aside the oily, dripping vines and branches of the Venusian jungle and swamp and stepped forth into the clearing where the drug gatherers' shack, a cubical, airtight structure, stood. This was as he had planned. They—Pete Slater

and Luke Browne their names had been entered in the Venus Registry of 2061—should help him to establish his alibi, unwittingly; if, indeed, he should ever have to establish it.

He approached boldly, and rang the buzzer. After a couple of seconds, a bearded face placed itself against the thick circular window, peered out at him.

Barry made motions of friendliness, and smiled his most disarming smile.

The man waved back. He grinned in response. Seconds later he operated the controls that slid open the outer door of the small airlock, closed it as Barry stepped through, then opened the inner.

Barry stepped into the single, untidy room, grinning his thanks. The two men, Slater and Browne, smiled back at him. Barry quickly unlatched his gloves, unbuckled his helmet.

"Whew! Sure is good to breathe real air again!" He stuck out his hand, shook those of the two drug gatherers. "Name's Harrington—Jim Harrington. I'm on my way up to the Little White Water Country, getting a clay sample for my company, Venusian Metals. We think there might be emeralds up that way."

"Pleased to meetcha," said the taller of the two, looking at Barry from under beetling brows. "Name's Pete Slater. This here is my pardner, Luke Browne. Get your pressure suit off, Harrington, we was just setting down to grub."

"Thanks, I will," said Barry, in a tone of relief. I've been on the trail twelve and a half hours. I left my space-ship on the edge of the plains outside the jungle, forty-three odd miles back. That was about the nearest place to here I could manage to land."

Browne, a short man with broad shoulders and lines of humor around his eyes, said, "Guess you made it just in time. Another half hour and your ozone tank would have given out." Ozone tanks were used instead of oxygen because, under equal conditions of pressure and temperature, more ozone, made of a heavier molecule, could be crowded into a tank than could oxygen. "If you're going up to the Little White Water country, we can fit you up with a full tank, in exchange for the empty one and three eighty-five."

Barry grinned. "That was my idea from the first. I looked you fellows up in the Registry. Boys, this grub looks almighty good!"

During the meal, while Barry talked with the easy abandon that made these men respect and like him at once, he studied them carefully. Rough, bluff, middle-aged men who had been gathering *lantis*-leaves for years; bringing their food and supplies by boat down a tortuous system of rivers and lakes from South Venus City; taking their produce out in similar fashion; living simply, roughly, more than glad to lend a hand to anyone who might stop by. They'd do, all right, Barry thought in gloating satisfaction. They'd never suspect Jim Harrington of being anything else than what he was. Even if they personally knew Anson Harkness, the man who had turned state's evidence on Fowler Barry eight long years ago, and doubtless they did, they'd never suspect that his disappearance was tied up in any way with the man who sat here, smoking a cigar and swapping tall yarns.

An hour later he was finishing his cigar and yawning.

"If you fellows can put me up for a few hours—?"

Luke Browne said with alacrity, "Hell, yes, brother. You'll be out all day tomorrow if you want to get to Little White Water and back here—though you better listen to an old-timer like me. I been up that way, and there ain't any emeralds. I did hear tell of some fellows a couple years ago finding a pocket of beryls, but they was wuthless and shot through with faults. But if you're going anyway, you better take two tanks of ozone. You might find yourself breathing CO_2 before you get back."

He pulled a compact folding bed out of the wall.

"No, thanks," said Barry. "A twenty pound tank is enough to carry around. I'll be traveling kinda fast, and all I'll be doing is to grab a fistful of mud, then I'll be starting back here again. Should make it on one tank."

"Yeah, but you'll have to pick 'em up and put 'em down for sure." Browne indicated the bed, while Slater started pulling a partition out that bisected the room. "There y'are, Harrington; hit the corks anytime you feel like it."

IN the morning—by thronometer, since Venus rotated slowly—the friendly drug-gatherers screwed an ozone tank into the back of his pressure suit, attached the nozzle to the catalyst chamber, where the ozone was broken down into oxygen. The pressure control gage automatically fixed itself at room pressure.

"Thirteen point five suit?" asked Browne. "Some people can't stand anything less than fifteen pounds to the square inch. Me and Pete stick to thirteen point five."

"I leave the control gage roll where she wants to," answered Barry absently. He buckled on his gloves, and then stuck out a hand to each of the two men. "Be seeing you, then, in thirteen hours at the most. More probably twelve." He grinned again, took his leave. In a few minutes, he was striding along the Little White Water trail, with the two men watching him as he disappeared into the jungle.

His thin lips twisted in a smile of contempt as soon as he was out of sight. The old fogies! They had been marooned in the jungle so long that they had entirely forgotten how to read a man's character except at face value. Well, that was all to the good and part of Barry's plan. He sought for a break in the jungle and plunged through at right angles to the Little White Water trail. He traveled some three hundred yards, and picked up his actual route, at the end of which lay the cabin of Anson Harkness and the revenge that Fowler Barry had looked forward to for eight long years of imprisonment in a Terrestrial penitentiary.

It took him four hours of laborious travel through the slushy swamplands and eternal twilight of Venus, guiding himself by means of a Registered Veneographical Map, to reach Anson Harkness' cabin. As was the case with the cabin of Slater and Browne, this cabin was situated in a small clearing, and perched on a knoll. It was running with water from the light drizzle that had started. Barry struggled over the soggy ground toward the cabin, his bearded face wreathed in a cruel, anticipatory smile. The port-like windows were lit up from within.

He stepped quietly to the window nearest him. He cautiously looked in. His breath hissed through his teeth. His hate flamed in his eyes. Anson Harkness, a tall, thin, gangling sort of man with a sensitive, almost gentle face, was bending over an earthenware crock, stirring a mess of *lantis*-leaves with a wooden spoon. Now and again, as Barry exultantly watched, he moved to a small retort suspended over a Bunsen burner, closely regarding the pale, sirupy fluid that emerged, drop by slow drop.

"Here's where you get yours," Barry whispered. His thin lips drew dack wolf-like; his close-set eyes gleamed.

He stepped to the door, pressed his gloved finger against the buzzer. After a few seconds, Anson Harkness looked out at him.

FOWLER BARRY waved his hand and grinned. Harkness smiled faintly, his lips framing the words, "Just a minute."

Seconds later, the tiny airlock opened; and less than a minute after that, Barry stepped into the cabin. He nodded at Harkness as he went about the job of closing the inner door, and then turned his back to him. Quickly, he unbuckled his gloves, unlatched his helmet. He felt the sudden slight change of pressure in the air. He let his helmet fall back on his shoulders. He still had his back to Harkness, grinning wolfishly to himself. He was going to enjoy the horror and consternation that was suddenly going to sweep across Harkness' face.

Harkness turned away from the door.

He was evidently waiting for Barry to turn around. He said nervously, "Bad traveling, alone, eh? You going far?"

Barry swung around, his eyes gloating. "No." he whispered in a low, husky monotone, "but *you* are!"

Harkness stared, his eyes dilating. Barry could feel him searching his face, prying behind the beard that hid his features. Then—what Barry was waiting for—the consternation and fright came.

Harkness leaped back, pinning himself against the wall, his sensitive face going whiter than it normally was under Venus' cloud blanket.

"You!" he whispered hoarsely He stared at the blunt instrument in Barry's hand. "No!" he suddenly screamed, his face distorted as he came to realize that his death was only a matter of moments. "You

can't, Barry! You can't! Not after I've gone straight, not just when I'm beginning to get ahead. Don't! Barry!"

"Stop babbling," Barry whispered gloatingly, falling into a crouch. Slowly he brought the automatic up, his eyes bright with his intent, dwelling with pleasure on the utter horror of Anson Harkness. "For you," he said softly; "for turning state's evidence, you double-crosser!"

"No!" Harkness thrust up a hand as if to ward off the death that was coming. He never finished his horrified protest. A thin, spiteful crack cut through the silence; smoke curled upward from the automatic. Anson Harkness slumped and died, his protest still written on his face.

Barry stood over him, still reveling in the terrible fear that Harkness' eyes showed. Then he stuck his automatic into its holster, fastened his gloves and helmet down again, and threw himself into a chair.

The main thing to remember now was that Slater and Browne expected him to go to Little White Water, which distance was a little less than twice as far as where he actually had gone. Traveling at a steady pace, it would take a minumum of twelve hours to go there and back, his tank supplying him for almost exactly that length of time. Therefore, Barry had some six hours to dawdle away; or he could simply wait until his tank was three-quarters empty, and then start back to the drug gatherers' cabin, arriving by way of the Little White Water trail, with his ozone tank almost empty.

Barry laughed to himself in high glee. The fools wouldn't ever suspect, or have reason to suspect him. After all, he didn't *have* to show them a sample of the clay he had supposedly picked up, did he? No. He settled himself back in the chair, sending an occasional look at the contents gage of his ozone tank while he interested himself in a year-old picture magazine.

He paid no attention to time; after all, he thought, the contents gage of his tank was his time piece.

He was looking through his fourth magazine when the time came to leave. He carefully placed the magazines back where they came from. He dressed the dead body of Anson Harkness in a pressure suit, picked the body up, took one look around to make sure everything was all right, and then stepped into the tiny airlock, closed the inner door, left the outer open, as was customary.

He jogged swiftly along through the eternal dusk, Anson Harkness riding on his shoulder. He came to a bog, and threw the body far out. He turned at once, and rapidly made off toward the drug-gatherers' cabin. Things had so far worked out to his intense satisfaction, and he was perfectly sure that he had made no slip-up at all.

A LITTLE less than three hours later, he cut across through the jungle to the Little White Water trail, and continued on from there, filled with gleeful confidence. His tank was almost empty, therefore a little more than twelve hours had passed. He'd reach the cabin in about fifteen minutes now.

His breath suddenly soughed from his lungs. What in hell was that? Slater and Browne, hurrying toward him along the trail! He could just about see their faces; and their faces were worried, alarmed. But that passed quickly when they saw him.

They hurried up, their smiles wide with relief.

Slater grabbed his hand, and panted, "Whew! We sure were worried about you! What kept you, man? We've been waiting for the last two hours!"

"What kept me?" said Barry blankly. "Why, nothing kept me." He was beginning to feel alarmed.

Browne looked at him curiously. He put his hands on hips, and screwed his face into a puzzled frown. "That's funny. D'you know you've been gone fourteen and a half hours? And—hell! You've still got ozone in your tank yet, too!"

Slater looked at the contents gage too. "That *is* funny!" he exclaimed. "For a trip to the Little White Water country and back, thireen hours is just about the lim—"

Barry clenched his hands and raced his mind. No matter where he'd slipped up, he had to collect himself!

He forced a wide grin to his face. "Say, let's don't stand here gabbing." He slipped his arms between those of Slater and Browne and urged them along in comradely fashion. "All I know is, I've been

traveling, and I'm damned glad to get back! I didn't know I was gone this long. I was just timing myself by the contents gage on my tank. It looked to me like I was in plenty of time. And say, I'm a little runt of a fellow; I don't use up as much oxygen as you fellows would."

"W-well," Slater said uncertainly, "maybe that's the reason. Still, it don't seem—" He broke off. "I guess the main thing is, you got back. But I can remember lots of times I've wished a tank would last me fifteen hours the way it did you. Whenever I go on a long trip I have to carry two of the tanks, and forty pounds ain't no fun. Oh hell! C'mon—grub's been stewing for an hour."

Barry grinned approval. He turned his head toward Browne. Browne was looking at Barry's ozone tank with a funny expression. Barry felt a quick thrill of alarm, but that passed when Browne grinned at him disarmingly.

"You musta stopped breathing for a while," he chuckled, and quickened his pace with Barry and Slater toward the cabin.

The evening was a repetition of the other. They ate, smoked cigars, swopped yarns, and laughed until whatever fears Barry had were utterly dispelled. He couldn't understand exactly why his ozone had lasted him fifteen hours, but it didn't appear to be troubling the two grizzled drug-gatherer's, so Barry resolved that it wouldn't bother him either. He went to bed and prepared for an untroubled sleep. Lord knows the tanger of hate for Anson Harkness in his mind had been keeping him awake for eight long years! He had done the sensible thing when he had removed it!

But none the less, though he did go to sleep, it was a troubled slumber. There were uneasy thoughts in the back of his mind. Somehow he wished that the two drug-gatherers hadn't drawn that partition across this section of the room—a soundproof partition at that. But they had explained they weren't ready for bed yet, so it must be all right.

BROWNE, a short man with extremely broad shoulders, said nothing to Slater of his suspicions until a half hour had passed.

Then he got up, and touched Slater on the shoulder. He made a motion to him. The mystified drug-gatherer followed him to a far corner of the room.

"What ails you?"

Browne put a finger to his lips. "Softer," he advised, lowly. His canny eyes sharpened. He jerked a thumb toward the partitioned off room where Fowler Barry was sleeping. "He didn't go to Little White Water," he whispered, his eyes smoldering.

Slater started. "What?" His voice was alarmed. His eyes widened. He trusted his partner, knew him for a man of good sense. He said slowly, "Maybe I follow your thought. Maybe I don't. Go ahead."

Browne made a fierce gesture. "He couldn't have gone to White Water and stayed away fifteen hours with only one tank of ozone. He stayed away fifteen hours, and actually came back with some still in his tank. So he went somewhere else, and told us he was going to Little White Water in order to throw us off the trail. He went a *shorter* distance, and then laid around and dawdled away the remaining time, timing himself by his contents gage. But he forgot that a man uses more oxygen when he's walking than when he's laying around. So he stayed away longer than he should have. That's right, isn't it?"

"Go on." Slater's eyes showed his interest.

"Answer me this: When a man puts a pressure suit on and attaches a tank, what pressure does the gage read?"

"Huh?" said Slater. "You know that—the same pressure that surrounded him before he put the suit on. The gage adjusts itself to give you the same pressure in the suit as that you've been used to."

"Sure. For instance, if you came into this cabin from outside with a pressure of fifteen pounds inside your suit, and opened your helmet only for a couple seconds, the pressure gage would change to read thirteen point five—the pressure in the cabin. Well, Harrington's gage reads thirteen point one one."

Slater's breath released with an explosive sound. "The pressure Harkness has been using! I see what you mean!" He turned his whole body, and stared at the partition behind which Barry was sleeping. He

jerked his head toward Browne and started toward the partition. Brown grasped his arm.

"No," he whispered fiercely. He quieted, said soberly, "We can't be sure of anything. That reading *may* be a hell of a far-fetched coincidence, but coincidence just the same. Understand? I'm going to beat it over and see if Harkness is all right. If he isn't and if anything at all's happened to him, I'll try to be back here before Harrington gets up and leaves. We'll know what to do with him if our suspicions are right."

He turned, rummaged in a locker, brought out a pressure suit. Slater stared at him for a minute, then nodded his head quickly. Five minutes later, Browne was equipped and ready to leave.

"I'll hurry it up," he promised. "Seven hours, no more; and maybe less. In the meantime, if he gets up ahead of time, try to keep him here. But don't accuse him of anything. He might be innocent. There's just a vague chance that he might actually have gone to White Water."

"Okay."

Five minutes later, Slater was watching his partner disappear hurriedly into the jungle. He went back and sat down, nervously picking at his finger-nails. If Harrington got up ahead of time, and decided to leave before Browne got back, what could he do except let him go? That was all he could do. But what if he—the thought was fantastic—what if he had *murdered* Harkness, and all the talk about White Water was just an alibi? Slater's teeth came together with a click. If that was true, Barry would have to pay for his crime—someway, somehow. But whatever that was Slater didn't have the least idea.

THE long hours wore away. Slater had a case of nerves. Twice he thought he heard sounds of Fowler Barry getting out of bed, then knew it was just the rain.

Six hours had passed when the moment he dreaded to face came. The man who might or might not be guilty of some hideous crime pushed back the partition, blinking in the sudden light.

"Time to get up," he remarked, smiling in friendly fashion.

Slater answered mechanically, wondering if it was just his imagination which made him think that Harrington was looking at him with a trace of wariness showing behind his eyes. Whether it was or wasn't, he had to keep Harrington here somehow, until they could be sure.

"Breakfast?" he asked, rising without too much alacrity. "What'll it be?"

Barry was swiftly dressing. He looked up. He made a wry face. "Nothing, this morning. Bad stomach. Thanks, anyway. Guess I'll be shoving off. I'll need a new tank I guess," he added carelessly. He started to lace his rawhide boots, his slim fingers moving rapidly.

"Sure. Stick around though—wait until Browne gets back."

Barry's head snapped up, his eyes narrowing slightly. "Where'd Browne go?" He added casually, "I'd hate to go off without seeing him."

"Sure," said Slater, wandering around the room with his hands in his pockets. "That's the reason I thought it might be nice for you to stick around. He's out gathering *lantis*. We take shifts—mean job."

"Um-huh." Barry buttoned his shirt, put his coat on. He sat down with a sigh, and Slater heaved an inward sigh of relief. But still, perhaps Harrington was just pretending that he wasn't in a hurry to be off. He watched the man while he lit a cigar, puffed leisurely; then put the cigar out with a sigh of regret.

"Got to be off," he said apologetically, getting to his feet. He got his pressure suit off the wall, and while Slater watched with a sinking feeling, clambered into it. He said carelessly over his shoulder.

"Let's have that ozone tank, Pete."

Slater bit his lip and gave up. He wheeled, and without more ado crossed the room to a row of tanks suspended from a rack. He paused in mid-step, and his eyes suddenly flashed. Then he went ahead, got a tank down from the rack, and returned with it. He screwed it into place on Barry's suit after taking the empty one off. He attached the nozzle to the catalyst chamber, released the valve and saw that Barry was watching the pressure gage swing over to thirteen point five. His eyes switched upward to the contents gage, where the needle pointed to "Full."

"Guess that fixes you up," Slater said, watching Barry buckle down his helmet.

"Too bad you have to go, but here's wishing you luck anyway."

He stuck out his hand. Barry took it, smiling in man to man fashion; and then, with Slater's help at the airlock, took his leave.

Slater watched him from the port-like window as he pushed aside the tangled creepers and branches that led him into the jungle.

Then he turned back to his chair, whistling under his breath.

IT couldn't have been more than forty-five minutes later that Luke Browne came hurriedly out of swampland and jungle from a direction opposite to that in which Barry had left.

Slater let him into the house.

Even before he took off his helmet, Browne whispered, savagely, "He did it! He killed poor Harkness! Where is he?" His eyes roved around.

Slater felt a cold chill running up his spine. He grabbed Browne's arm.

"You're sure?" he said, tensely.

"Sure I'm sure!" Browne gasped. There were tears in his eyes. When he looked at Slater there was a deadly rage there too. "Don't tell me," he hissed, "that you let him go! He murdered Harkness. He shot him. I found him in the swamp—poor Harkness, that wouldn't hurt a fly! If you tell me you let him go," he babbled.

"I did," said Slater.

Browne turned, snarling. "Then I'm going after him," he gritted. "Im going to—"

Slater said sharply, "Shut up. You're not going to do anything." He smiled, a slow, terrible smile. "Sit down, Luke. Get your suit off, too. Jim Harrington, if that's really his name, is already taken care of. Understand?"

"You're crazy! He's already gone, hasn't he? You didn't have sense enough to keep him here, did you?"

"Shut up!" Slater said sharply. He held Browne's wet eyes with his own hard ones.

"Remember that Harrington's tank was almost empty when he got here from his ship? He had just enough ozone to take him that far. Well, he needed the same amount of ozone to get back. Do you know why we use ozone and a catalyst to break the ozone down into oxygen that we can breathe, instead of using plain oxygen?"

"Don't remember the theory of it," Browne said sulkily.

"Avogadro's Hypothesis. Equal volumes of all gases under the same conditions of pressure and temperature contain the same number of molecules. That applies no matter how big the molecules are.

"So that's the reason we use ozone. Ozone is an allotropic form of oxygen. A catalyst can break it down into oxygen. And since the ozone molecule is one third larger than the oxygen molecule, we can get more oxygen into a tank—actually—by filling it with ozone rather than oxygen."

His grim eyes bored into Browne's.

"So," he said softly, "I took one of our old stock of oxygen tanks, and gave it to Harrington. But he thinks it's ozone."

The two of them looked at each other silently for a full thirty seconds. A tight grim smile suddenly etched itself on Browne's bearded face. "Right," he said, in a whisper. "And we could have pushed ourselves and caught up with him—if he was innocent."

As by mutual accord, they turned to a window, looked out into the swamp, where Fowler Barry was even then hurrying back to his ship.

Each knew what the other was thinking. After eight hours of travel, and four more to go, Harrington would suddenly discover that his tank was almost empty. Only two thirds of the journey completed, because an oxygen molecule is only two thirds as big as one of ozone. Panic—wild fear—utter madness as slow suffocation started.

Yes, Fowler Barry, alias Jim Harrington, would pay for the murder of Anson Harkness.

A Fiction House Magazine



BEYOND LIGHT

By NELSON S. BOND

Venus was civilized . . . so the Universe thought! But deep in its midnight caverns . . . beyond light, beyond the wildest imaginings of an ordered System . . . dwelt Horror.

THEY stood in the *Orestes'* tiny observation turret, Mallory's defiant arm still tight about the slim and lovely girl, just exactly as bull-voiced Captain Lane had found them. The shimmering reflection of the planet Venus, only a few thousand miles ahead, bathed the trim, hard-jawed man and the softly

pretty girl in a gentle glow, but it failed to soothe the grizzled space ship skipper.

"What in hell does this mean?"

Mallory, remembering an old forgotten saying—something about a soft answer turning aside wrath—spoke rapidly. "Sorry if we gave you a shock, sir," he said. "But your daughter and I are engaged."

Few medical men would have guaranteed Space Captain Jonathan Lane a long life at that moment. His usually ruddy face was a violent mauve-scarlet, his eyes hot pin-points of anger, his lean, hard body was atremble with emotion.

"Engaged. *Engaged!*" He made a convulsive motion. "Did you say engaged? To this inane young fool. You're talking nonsense. Go to your cabin, girl."

Dorothy Lane sighed and looked hopefully up at Mallory.

Tim Mallory had forgotten his old and wise quotation.

"Why not engaged," he snapped. "What have you got against me?"

"What" growled Captain Lane. "He asks me *what!*"

He had a reason; one which he shared with all fond parents who have ever seen a beloved child slipping from their arms —jealousy. Jealousy and grief. Now his mind pounced on a substitute for the true reasons that he would not—could not—name.

"Well, for one thing," he said curtly, "you're not a spaceman. You're nothing but a blasted Earthlubber!"

Mallory grinned.

"You can hardly call me an Earthlubber, Captain. I spent two years on Luna, three on Mars; I'll be five or more on Venus—"

"Pah! Luna . . . Mars . . . Venus . . . you're still a groundhog. I'll not see my girl married to a money-grubbing businessman, Mallory."

"Tim's not a businessman," broke in Dorothy Lane. "He's an engineer." And anyone seeing her young fury would have smiled to note how much alike she was to her bucko, space captain father.

"Engineer! Nonsense! Only an astrogation engineer deserves that title. He's a —a— What is it you do? Build iceboxes?"

"I'm a calorimetrical engineer," Mallory answered stiffly. "My main job is the designing and installation of air-conditioning plants where they are needed. On airless Luna, the cold Martian deserts, here on Venus. The simple truth is—"

"The simple truth is," stated the skipper savagely, "that you're a groundhog and a damned poor son-in-law for a spaceman. You being what you are, and Dorothy being what she is, I say the hell with you, Mr. Mallory! Perhaps I can't prevent your marriage. But there's one thing I can do—and that is wash my hands of the two of you!"

He watched them, searching for signs of indecision in their eyes. He found, instead—and with a sense of sickening dread —only sorrow. Sorrow and pity and regret. And Tim Mallory said quietly, "I'm sorry, sir, that you feel that way about it."

Lane turned to his daughter.

"Dorothy?" he said hoarsely.

"I'm sorry, too." Her voice was gentle but determined. "Tim is right. We—" Then her eyes widened; sudden panic lighted them. and her hand flew to her lips in a gesture of fear. "Something's wrong! Venus! The ship—!"

CAPTAIN LANE did not need her warning. His space-trained body had recognized disaster a split-second before. His legs had felt the smooth flooring beneath him lurch and sway. His eyes had glimpsed, through the spaceport, the sudden looming of the silver disc toward which they had been gliding easily but now were plunging at headlong, breakneck speed. His ears howled with the clamor of monstrous winds that clutched with vibrant fingers the falling *Orestes.*

In a flash he spun and fought his way up a sharply tilting deck to the wall audio, thrust at its button, bawled a query. The mate's voice, shrill with terror, answered:

"The Dixie-rod, sir! It's jammed! We're trying to get it free, but it's locked! We're out of control—"

"Up rockets!" roared Lane. "Up rockets and blast!"

"They're cut, sir! The hypo's cold. We'll have to 'bandon ship—"

Abandon ship! Tim Mallory did not need Dorothy's sudden gasp to tell him what that meant to the trio caught in the observation turret. Earthlubber he might be, but he knew enough about the con-

struction of space craft to realize that there were no auxiliary safety-sleds anchored to this section of the *Orestes*.

Venus was no longer a beaming platter of silver in the distance. They had burst through its eternal blanket of cloud, now; the world below was no longer a sphere, it was a huge saucer of green, swelling ominously with each flashing second. Tempests screamed about them, and the screaming was the triumphant cry of hungry death.

No ships. No time to seek escape. Life, which had but recently become a precious thing to Tim Mallory, was but a matter of minutes.

He saw the agony of indecision on Captain Jonathan Lane's face, heard, as in a dream, the skipper delivering the only possible order.

'Very well, Carter! 'Bandon ship!"

And the pilot's hectic query, "But where are you?"

"Never mind that. Cut loose, you fool!"

"No, Captain! You're below. I can't let you die. I'll keep trying—"

" 'Bandon ship, Carter! It's an order!"

And the faint, thin answer, "Aye, sir!" Silence.

Tim turned to Dorothy, and from somewhere summoned the ghost of a smile. His arms went out to her, and as one in a dream she moved toward him. There was, at least, this. They could die together.

And then Captain Lane was between them, bellowing, commanding, pushing them apart.

"Avast, you two! This is no time for play-acting. Mallory, jerk down those hammocks. Tumble in and strap yourselves tight! It's a chance in a billion, but—"

Tim swung into motion. The old man was right. It was a slim chance, but—a chance! To strap themselves into the pneumatic hammocks used by passengers at times of acceleration, hope that by some miracle the *Orestes* would not be crushed into a metal pancake when they crashed, pray that it might land on a slope, or some yielding substance.

It was a breathless moment and a mad one. Frenzied winds and the groan of scorching metal, the thick panting of Captain Lane as he strapped himself into a hammock between Tim and Dorothy, Dorothy's voice, "Tim, dear—" And his own reply, "Hold tight, youngster!"

Then heat increasing, heat like a massive fist upon his breast, hot beads of sweat, salt-tasting on his lips, an ear-splitting tumult of sound from somewhere. . . . A swift, terrifying glimpse of solid earth rushing up to meet them. . . . The last, wrenching shudder of the *Orestes* as it plunged giddily groundward. Heat . . . pain . . . flame . . . suffocation. . . .

Then darkness.

OUT of the darkness, light. Out of the sultriness, a thin, cool finger of breeze. Out of the silence of death, life!

Tim Mallory opened his eyes. And a thick, wordless cry of thanksgiving burst from his lips as he stared about him. The impossible had happened!

The ship had crashed. Its control-room was a fused and twisted heap of wreckage smoldering in the giant crater it had plowed. But somehow the observation turret, offset in a streamlined vane of the *Orestes*, had escaped destruction.

Great rents gaped where once girders had welded together sturdy *permalloy* sheets, purposeless shards lay strewn about, even the hammocks had been wrenched from their strong moorings, but he and his companions still lived!

Even as Tim fought to loose the straps that circled him, Captain Lane groaned, stirred, opened his eyes. Dully, then with wakening recollection. And his first word—

"Dorothy?"

"Safe," said Mallory. "She's safe. We're all safe. I don't know how. We must bear charmed lives." He bent over the girl, loosened her straps, chafed her wrists gently. Her eyes opened, and the image of that last moment of panic was still mirrored in their depths. "Tim!" she cried. "Are we— Where's Daddy?"

"Easy, sugar!" soothed Tim. "He's here. It's all over. We pulled through. It was a miracle."

He said it gratefully. But Captain Lane corrected him. The safety of his daughter assured, the old spacedog's next thought had been for his ship. He had walked forward, studied the crumpled ruin

of the control-room. Now he said, "Not a miracle, Mallory. A sacrifice. It was Carter. He didn't bail out with the others. He must have stayed on in the control-room, fighting that jammed Dixie-rod. It must have come clean at the last moment, slowing the ship, or we wouldn't be here. But it was too late, then, for him to get away—"

His voice was sad, but there was a sort of pride in it, too. Dorothy began to cry softly. Captain Lane's hand came to his forehead in brief, farewell salute to a gallant man. Then he rejoined the others. "It was the first time," he said, "he ever disobeyed my orders."

Tim said nothing. There was nothing he could say. But for the first time he realized why Captain Lane, why all spacemen, felt as they did about their calling. Because the men who wore space-blues were of this breed.

For a long moment there was silence. Then the old man stirred brusquely.

"Well, we'd better get going."

"Going?" Tim stared about him. It was a far from reassuring scene that met his eyes. They had landed in the midst of wild and desolate country, on a plateau midway between sprawling marshlands below and craggy, cloud-created hills above. The shock of the crash must have stunned into silence all wild-life temporarily, for upon awakening, Tim had been dimly conscious of a vast, reverberant quietude.

But now the small, secret things were creeping back to gaze on the smoking monster that had died in their midst; small squeals and snarls and chirrupings bespoke an infinitude of watchers. The hour was just before dawn; the eastward horizon was tinged with pearl. "Going?" Tim repeated. "But where are we?"

CAPTAIN JONATHAN looked at him somberly. "In the Badlands," he said. "And the term is not a loose one; they *are* bad lands, Mallory." He pointed the hour hand of his wrist-watch at the pale mist of rising sunlight. "I don't know exactly where we are, or how far from civilization, but it's far enough."

Tim said determinedly, "Then we'd better pack up, eh? Hit the trail?"

The skipper laughed scornfully. "What trail? We'd be committing suicide by heading into those marshes, those hills, or those jungles. Our only chance of survival is to stay close to the *Orestes*. Five of the sailors bailed out, you'll remember. In safety-sleds. We've got to hope one or more of them will reach Venus City, start a rescue party out after us."

"But you said 'get going'?"

"To work, I meant. We're going to need protection from the sun." Again Captain Lane glanced at the sky, this time a little anxiously. "I know this country. After that sun gets up, it will be a bake-oven. A seething cauldron of heat. Damp, muggy heat. Steam from the marshes below, the raw, blinding heat blazing down from the rocks above. This is Venus, Mallory—" He laughed shortly; but there was no mirth in his laughter. "This isn't an air-conditioned home on Earth. Come along!"

Silently, Tim followed him. They picked their way through the tangled wreckage of the *Orestes*, stopping from time to time to salvage such bits of equipment as Lane felt might be of use. Flashlights, side-arms, vacuteens of clear, cold water, packets of emergency rations. Through chamber after shattered chamber they moved, Captain Lane leading the way, Tim and Dorothy following mutely behind. Everywhere it was the same. Broken walls, bent and twisted girders, great rents in what had once been a sturdy spacecraft.

And finally Lane gave up.

"It's no use," he said. "There's no protection in this battered hulk. Shading ourselves in one of these open cells would be like taking refuge in a broiler."

"Then what can we do, Daddy?"

"There's only one thing to do. Break out bulgers. They're thermostatically controlled. We'll keep cooler in space-suits than anything else. Mallory, you remember where they were?"

"Yes, sir!" Tim went after the space-suits, grateful for a chance to contribute in some way to their common good. The storeroom in which the bulgers had been locked was no longer burglar-proof; one wall had been sheared away in the crash as if cleft with a gigantic ax. He clambered into the compartment, broke out three bulgers, gathered up spare oxytainers for each of them.

He had just finished lugging the equipment out of the storeroom, sweating from the exertion of lifting three heavy space-suits beneath a sun which was now glowing brazenly in an ochre, misted sky, when a sharp cry startled him.

"Daddy! Behind you!" It was Dorothy who screamed the warning. And then, "Tim! *Tim!*"

"Coming!" roared Mallory. He was scarcely conscious of the weight of the bulgers now. In a flash he was plunging toward the source of the cry, tugging at the needle-gun in his belt. But before he had taken a dozen steps—

"Never mind, Mallory!" roared Captain Lane. "Stay where you are! Back, you filthy—!" There came the sharp, characteristic hiss of a flashing needle-gun, the *plowp!* of some unguessable, fleshy thing exploding into atoms. "Stay where you are! We'll come to you. Quick, Dorothy!"

THEN their footsteps pounding toward him, Dorothy rounding a bend of the ship, white-faced and flying, Captain Lane on her heels, covering their retreat with his gun. As Mallory sprang to join them Lane flashed him a swift glance and tossed curt words of explanation.

"Proto-balls! Giant, filthy amoebae. Pure proteid matter. *Aaah!* Scorched that one! Damned needle-guns won't stop 'em, though. Just slows 'em down. Only thing'll kill 'em is an acid-spray. We've got to get out of here!"

"But where, Daddy?"

"Got those bulgers, Mallory? Climb into 'em. And hurry. Saw caves in the mountainside up there. They won't enter caves. Need sunlight. *Look out!*"

Again that sharp, explosive hiss. Mallory leaped back, feeling the brief, furtive brush of something foreign across the toe of his boot. The attacking proto-balls were of all sizes; they ranged from huge, oily-glistening, foul-odored spheres to tiny globules the size of a baseball. One of the latter size had rolled swiftly toward him; for a second, before Captain Lane's gun splashed flame upon it, it had come in contact with Mallory's foot. Where it had touched was now a patch of crumbling gray that had been leather!

"Eat anything!" rasped Lane. "Didn't touch you, eh, Mallory? Good. Start hacking away. And get into the bulgers. Move!"

Mallory climbed swiftly into his space-suit. Its weight disappeared as he touched the grav control button; the heat which had begun to oppress him fled, too, when he closed the face-port. He touched Lane's shoulder, thrust the remaining bulger at him.

"I'll hold them while you get into it!"

And he did. It was an unequal battle, though. The proto-balls were the next thing to imperishable. The needle-gun could not destroy them, it only slowed them down. An occasional perfect bull's-eye shot, striking a vulnerable spot, would burst a proto-ball into a thousand pieces—but when that happened, each of the pieces, amoeba-like, curled instantly into a tiny daughter proto-ball and surged forward again.

Yet there must have been some elementary nervous-system in these creatures, for while it could not kill them, still they seemed to fear the flaming ray of the needle-gun. And it was to this fear that the trio of Earthlings owed their existence during those next hectic minutes while they stumbled, ever backward and upward, giving ground steadily, toward the cave-mouth Captain Lane had pointed out on the hillside.

Tim did not even know the cave was near. Shoulder to shoulder with the old space-captain, he maintained a rear-guard defense against the proto-balls, gun flaming without cessation, his eyes aching from the strain of constant watchfulness against an unexpected flank attack. And then—

And then, suddenly, incredibly, a shadow fell under his stumbling feet; at that line of division between glowing sun and somber shade the proto-balls stopped, quivering and oozing viscous droplets of slime, hesitated, and turned away.

Lane's roar was gleeful. "Good work, young fellow! We made it!"

They were safe in the black harbor of the cave.

WHEN he turned to stare into the depths beyond him, at first he could see nothing but a great orange ball, which was his photo-image of the dazzling sunlight whence they had fled. Then tortured nerves surrendered to the soothing dark

and he could see that they stood at the mouth of not a cave but a great, many-corridored cavern that stretched—for all Mallory could tell—clear down into the murky bowels of Venus.

Jonathan Lane was loudly exuberant.

"This is fine!" he declared. "We owe those grease-balls a vote of thanks. This is an ideal refuge. Shady and cool and safe—and look! We can even see the ship from the heights, here! If anyone—I mean, *when* they come to rescue us, we can signal them."

Mallory hoped the slip had passed unnoticed by Dorothy. "*If* anyone—" the skipper had started to say. Which meant that he, too, had misgivings as to the likelihood of rescue. But that was a question Mallory would not press. He hurdled the awkward moment with a swift response.

"We'll have to have something to signal with, sir. Our bulger audios won't operate that far, will they? We'll have to build a fire, or at least have one ready to be kindled when they arrive."

"Right," agreed the skipper. "But we can't gather wood until those protos have gone away. We'll take care of that later. Meanwhile—" He glanced into the jetty depths beyond them. "It will be some hours before we can expect to get relief. Time to waste. Why not amuse ourselves by exploring this cave?"

"Explo—" began Tim. It was a childish idea. One *so* ridiculous, in fact, that it was on the tip of Mallory's tongue to make caustic rejoinder to Lane's suggestion. But even as the comment trembled on his lips, his eyes met those of the captain—and in Lane's shrewd, pleading glance, Tim found a reason and an answer for this subterfuge.

Lane feared that very thing which he, himself, had dreaded. This cave might be their refuge for a long, long time!

There might be no rescue party. If so, and since a trek across the Badlands was suicidal, their only chance for ultimate salvation was to find a place where they could live. This cave was such a place. If it had water, and if it were undenizened by wild beasts; if in it, or near it, they could find food . . .

He hoped his voice was not too suspiciously hearty.

"Great idea!" he agreed. "Splendid. It should be a lot of fun. What do you say, Dorothy?"

Dorothy looked from her lover to her father, back to her lover again. And her voice was grave and fearless.

"I say," she said quietly, "you are the two finest men who ever lived. But you're not fooling me for a moment. I know very well why we must explore this cave. And I say, let's start!" There came swift lightness and heart-warming humor to her tone. "After all, if a gal has to keep house in a place like this, she ought to know how many rooms it has!"

Tim looked at her long and gravely. And then,

"You," he said, "are swell. Once I called you wonderful. I didn't really know—then."

"Wonderful?" snorted Captain Lane. "Of course she is! She's my daughter, isn't she? Well, come along!"

Grinning, Tim fell in behind him. And into Stygian darkness, preceded by a yellow circle from the flashlight of the *Orestes'* skipper, moved the marooned trio.

THE main cave opened out as they picked their path forward; the walls pressed back, the ceiling lofted, until they were standing in a huge, arched chamber almost two hundred feet wide and half as high. This amphitheater debouched into a half dozen or more smaller corridors or openings; for a moment Captain Lane stood considering these silently, then he nodded toward that on their extreme left.

"Might as well go at it in orderly fashion. We'll try that one first. No, wait a minute!" He halted Tim, who had pressed obediently toward the corridor-mouth. "Try not to be a ground-hog all your life, Mallory! You should know better than to stroll aimlessly around a place like this. A confounded labyrinth, that's what it is! If we got lost down here, we might spend the rest of our natural lives trying to find a way out."

He slipped his needle-gun from his bulger belt, let its scorching ray play for an instant on the rocky floor of the cavern. Hot rock bubbled, and a fresh, new groove shone sharply in the shape of an arrow.

"Every time we make a turn we'll do this. Then we can retrace our steps."

Lane smiled sarcastically. "But a hot-and-cold engineer wouldn't think of a thing like that, I suppose?"

Tim made no reply. But he reproached himself secretly for not having considered this necessity; it did not make him feel much better that Dorothy, standing beside him, pressed his arm in mute encouragement.

The corridor was a short one, opening into another cavern like that which they had just quitted. Similar, but not quite the same. For as Lane played his light about the walls of this inner, deeper, chamber, all three adventurers gasped with the impact of sudden, breathtaking beauty. The ebon walls, warmed by the light, flashed into a glittering, scintilliscent miracle of loveliness; a galaxy of twinkling stars seemed to appear from nowhere and hang in dark space burning and gleaming.

"It—it's magnificent!" breathed the girl. "What is it, Daddy? Jewels? It looks like the fabulous caves of Ali Baba."

It was Tim who supplied the answer. "They're not jewels. Just nitre crystals protruding through a coating of black oxide of manganese. I've seen the same thing on Earth—in the Mammoth Cave of Kentucky."

And they moved on. Deeper and yet deeper into the Lethean depths, pausing from time to time to char a signpost for their retreat. Miracles without wonder they saw. Domes huge enough to house a spaceship, stalactites lowering like great, rough fangs from ceilings lost in dizzy heights, twin growths springing, oftimes without apparent reason, from the cavern floor—stalactites formed by centuries of slow lime dripping from the roof. And gigantic columns, hoariest monsters of all, columns of strange, iridescent beauty.

Once they passed a pit so deep, so dark, that even the skipper's probing beam could not penetrate its majestic depths. From somewhere far below came the whispering surge of churned water; in the light of the flash there seemed to hover above the rim of this chasm a faint, white, wraithly film. Lane frowned, unscrewed his faceport for an instant, sniffed, and hastily ducked back into the bulger.

"Ammonia," he said. "I thought as much. Keep your bulger-ports closed. Venus caves aren't Earth caves. Queer things here. No telling what we'll bump into."

He didn't mention the all-too-obvious fact that so far they had not "bumped into" that thing which they sought. A fuel supply, a water supply, signs of an underground grotto wherein might be found food. Nor had their winding way at any time moved them toward the surface, toward a possible second exit from the caverns. Their movement was ever down, deeper into the bowels of this weird, faery wonderland.

ONCE, for a heart-stopping moment, they thought they had found their desire. Rounding a bend, they came upon a cavern alive with color; towering vines and trees laden with great clusters of grapes; bushes aflower with myriads of gorgeous buds. Dorothy sprang forward with a cry of joy—but when she touched one of the mock roses it shattered to fine, white, powdery snow; upon investigation the trees, the vines and "grapes" turned out to be of the same, perishable nature.

And Tim remembered their name. "Oulopholites," he said. "Sulphate of magnesia and gypsum. Mother Nature *does* repeat herself, you see. She uses the same forms, but these are lifeless mimicry." And he looked at his watch. "Guess we'd better turn back, eh, skipper? We've been two hours on the prowl, and there doesn't seem to be anything in this direction. Shall we go back and try another corridor?"

Lane nodded slowly.

"I suppose so. But—Oh, while we're this far, we might as well peek into that next cavern. Won't take but a minute. And if there's nothing there—"

The words died on his lips. As he spoke them, they had moved through a short archway; the yellow circle of his flashlight had swung about a cavern larger than any in which they had yet stood. The floor of this cavern sloped sharply downward, narrowing into a funnel. And at the end of that funnel. . . .

"Great gods of space!" whispered Captain Lane, awestruck. "Am I crazy? Do you see what I see?"

For that upon which his lightbeam had ended, the incredible structure from which its glow was now reflecting in shimmer-

ing clarity, was—*a massive door of bronze!* Golden in sheen, strong and secure, obviously the work of intelligent craftsmen, it met their wondering stares with bland imperturbability.

And Tim gave a great shout.

"A door! Venusians! We're all right now. Food and rest . . . they'll tell us how to get back to civilization. . . ."

And then—

"Quiet!" rasped Captain Lane. His flashlight beam faded abruptly, darkness closed in about them like a shroud. But only for an instant. Because a new effulgence lit the scene. The massive door was slowly swinging open—and from its widening groove came a pallid, greenish glow. Like some monstrous, hungry mouth the door opened wider and yet wider. Dim shapes were shadows behind it, vague at first, dark and sinister. . . .

And then, out of the ghoulish semi-gloom, suddenly two figures stood limned in stark relief. But they were not the figures of Earthmen, neither were they fat, friendly shapes of Venusians. They were tall, lean creatures, thin-faced and hungry-fanged, garbed with what appeared to be huge mantles covering them from their shoulder-blades to the tips of their long, prehensile fingers!

Two wobbling, awkward steps they took from the now completely opened door; for an instant Tim heard the shrill, piping chatter of their speech—then their "mantles" spread and became huge, jointed wings on which they soared straight across the cavern toward the spellbound trio!

Captain Lane's cry was thick with horror.

"Good God, Mallory! Shoot, and shoot quick! We've found the gates of hell. They're the bat-men—the Vampires of Venus!"

EVEN as he spoke, he was tugging his own needle-gun from its holster; now its fiery beam lanced squarely at the foremost of the two attackers. Nor was Tim Mallory slow in heeding. His weapon was out in one swift movement; its beam slashed a hole in the gloom as it sought one of the silently winging creatures above.

But they might as well have taken aim at a will-o'-the-wisp. The dim glow from beyond the open door illumined only a portion of the cavern; the heights above were a well of jet, against which the crepuscular creatures were all but invisible. Again and again the two heat-beams stabbed black shadows, once Tim thought he heard a brief, whimpering cry, but no winged creature, charred in death, hurtled from the eyrie point of vantage. Only the sound of great wings beating persisted—and once an ebon shape flung itself from an ebon shadow to rake sharp claws gratingly across Tim's bulger helmet. It had glided away again, mockingly, before he could spin to flame a shot after it.

Then Lane's free arm was thrusting at him. Lane's voice was sharp, incisive.

"Out of here! Dorothy first! Maybe there are just two of these devils—*Ooow!* Damn your rotten hide!"

He had turned to speak over his shoulder. In that moment of inattention, one of the bat-men had rocketed down upon him, slashed viciously at his gun-arm with clawed hands. Metal clattered on rock; Captain Lane went swiftly after the lost gun, groping for it blindly, down on his knees.

Tim had taken a backward step; now he moved forward again to cover the frenzied fumbling of the older man. His eyes were suddenly dazzled as Lane, desperate, used his flash to search for the weapon. And the skipper groaned.

"It's gone! It fell down that fissure! Mallory—quick! Do you have another gun? They're closing in—"

Beads of cold sweat had suddenly sprung out on Tim Mallory's forehead. Not only did he *not* have another gun—but the one he now held was about to become useless! A dim shape wheeled above him; he pressed the trigger, but no red flame leaped from the muzzle. Just a spluttering, ochre ray that simmered into nothingness a few feet above his head!

The gun's charge was practically exhausted. Battle with the proto-balls . . . the constant drainage of raying their route-turns . . . these had done it! There were fresh capsules in his ammunition kit, but in the length of time required to recharge the gun. . . .

"A minute!" he cried. "Fight 'em off a minute! I have to—"

And he reached for a new capsule. But the skipper, misunderstanding, impatient,

turned peril into disaster with his next, impetuous move.

"Don't stand there like an idiot, you Earthlubber!" he howled. "Here—give that to me!"

And he jerked the useless weapon from Tim's hand!

For a stark instant, Tim was wrenched in a vise of indecision. To fight the winged demons without a weapon was madness. Wisdom lay in hurrying back to the ship, equipping themselves with new guns. But—but Lane had said these bat-men were vampires. The Vampires of Venus, he had said. And Tim had heard stories . . . the word "vampire" meant the same in any language, on any planet.

But there was Dorothy to consider, too. He groaned aloud. His instinct bade him plunge forward, weaponless or not; common sense advised the other course.

And then, in a split-second, the decision became no longer his to make. For as if the victory of the first two bat-men had determined the action of the entire clan, out of the bronze gateway flooded a veritable host of the sickening winged creatures!

Then a battering-ram smashed him crushingly and he choked, gasped, felt the weakness of oblivion well over him like a turgid, engulfing cloud. He was conscious of raking talons that gripped his armpits, of sudden, swift and dizzy flight . . . of a vast, aching chaos that rocked with hungry, inhuman mirth.

CAPTAIN LANE'S voice was an aeon away, but it came closer. It said, "—be all right now. You must have been in a hell of a fight, boy!"

And Dorothy was beside him, too. There were tears in her eyes, but she shook them away and tried to smile as Tim pushed himself up on one elbow. Tim's head was one big ache, and his body was bruised and sore from the buffeting of the bat-men's hard wings. He looked about him dazedly.

"Wh-here are we?"

The room was a low-ceilinged, square one. It had but one door, a bronze one similar in design, but smaller, than the gateway that had led to the city of the Vampires. Elsewhere the walls were hewn from solid rock.

"Where are we?" he repeated. He started to unscrew his face port, but the skipper stayed his hand.

"Don't, Mallory! We tried that. It's impossible. The air's so ammoniated it would kill you. From that."

He pointed to a trough-like depression in the room. A curious arrangement. Probably for purposes of sanitation. Liquid ammonia, or something akin, entered the trough from a gushing tube set low in one wall, transversed the room, and exited through a second circular duct. These were the only openings in the chamber, save for—Tim glanced up, noticed several round holes. He studied these curiously. Lane answered his unspoken query.

"Yes, that's right. Ventilation. These devils may be inhuman in form but they're clever. They've built this underground city, equipped it with heat, light, ventilated it to maintain circulation—"

There was something wrong there. Tim frowned.

"Ventilation? Yet you say that stream is ammoniated enough to kill a man. Then how do they live?"

"They're not men," replied Lane bitterly. "They're vampires. Heaven knows how they can breathe this atmosphere, but they can. The ingenious, murdering . . ."

HE didn't complete the sentence. For at that instant there came the scrape of movement outside their dungeon door. The door swung open. A bat-man entered. His hooked claw signalled them to come forth. Tim glanced at the older man. Lane shrugged resignedly.

"There's nothing else to do. Maybe we can strike a bargain with them. Our freedom for something they want."

But there was no hope in his voice. Tim threw an arm about Dorothy's shoulders. They followed their guide out of the room. There a cordon of other bat-creatures circled them, and Tim, for the first time, got an opportunity to see his captors at close range.

They weren't much to look at. They were such stuff as nightmares are made of. Tall, angular, covered from head to toe with a stiff, glossy pelt of fur. Their faces were lean and hard and predatory; their teeth sharp and protruding. Their wings

were definitely chiropteric; the wing-membranes spanned from their shoulders to their claws, falling loosely away when not in use, and were anchored to stiff, horny knobs at clavicle and heel.

They walked now, guarding their captives, but it was apparent that flight was their usual method of locomotion. Anything else would be awkward, for their knees bent backward as did the knees of their diminutive Earthly prototype.

They turned, at last, into a huge chamber. And before them, perched obscenely on a platform elaborately laid with jewels and tapestries, was the overlord of the Harpies.

NO man, by the wildest stretch of the imagination, could have considered any of the vampires attractive. But of all they had seen, this monster was the most repugnant. It was not only that his frame was tauter, skinnier, than that of his fellows; it was not that his furry body was raw and chafed, as if from ancient, unhealed sores; it was not only that his pendulous nose-leaf perpetually snuffled, pulsed, above a red-lipped, vicious mouth. It was the unclean aura of evil about him that made Tim feel dirty. As though by merely looking on this thing he had profaned himself in some strange, inexplicable fashion.

Dorothy felt it, too. She choked once, turned her face away. And Captain Lane growled a disgusted curse.

"Lord, what a filthy beast! Mallory, I wouldn't mind dying if I could get one shot at that pot-bellied horror first!"

He did not expect—none of them could have expected—that which happened then. There came a high, simpering parody of laughter from the thing on the dais before them. And the words in their own tongue—

"But you cannot, Man! For here *I* am the Master!"

Lane's jaw dropped; his eyes widened. Tim Mallory felt the small hairs at the nape of his neck tighten coldly. The bat-thing could speak! Was speaking again, its cruel little mouth pulled into a grimace remotely resembling a grin.

"You are surprised that I speak your language? Ah, that is amusing. But you are just the first of many who will soon discover how foolish it was to underestimate the intellect of our ancient race.

"With fire and flame you forced us to the caverns, Man-thing. But we are old and wise. We built our cities here, warmed them against the dreadful damp and cold. Soon we shall burst forth in all our might. And when we do—"

He stopped abruptly; the tensing of his claws told the rest more eloquently than words. He rapped a command to one of the guards.

"Take off their garments! I would see what prizes have stumbled into our refuge!"

Obediently, the bat-creature shambled forward; his talons fumbled at Captain Lane's face-port. Tim cried out, "No! Don't let him! The atmosphere—"

The vampire overlord grinned at him cunningly.

"Fear not, Earthman. The air in this chamber will not harm you. We have other plans—" His wet, red tongue licked his lips.

Then Lane's headpiece was removed, and his bulger was stripped from him. A dazed expression swept across his forehead. He said, "Mallory—it—it's *hot* in here! And the air is breatheable!"

But by that time, Tim, too, had been removed of his space-suit; he, too, had felt the sultry, oppressive heat of the cavern. It was incredible but true. The vampires had found a way to make their underground city warm as the surface from which men had hunted them. That then—it came to Tim with sudden, startling clarity—that was why—

The overlord was speaking again. His tone was one of gratification.

"The men will do. We shall feast well tonight—*very* well! The woman—" He gazed at Dorothy speculatively. "I wonder?" he mused in a half whisper. "I wonder if there is not a better way of undermining Earthmen than just crushing them? A new race to people Venus? A race combining our ancient, noble blood and that of these pale creatures?" His eyes fastened on Dorothy's suddenly flaming loveliness. "That is a matter I must consider.

"That will do!" He motioned to his followers even as Tim, white of lip and riotous with rage, took a forward step. "Allow them to don their clumsy air-suits again; take them back to their dungeon.

We shall bring them forth again when the time is ripe."

Strong claws clutched Mallory, staying him. Short minutes later, surrounded by their guards, they were once more on their way to the nether prison.

IT was a grim-faced Captain Lane who paced the floor of their dungeon. There was anger in his eyes, and outrage, too. But beneath those surface emotions was a deeper one—fear! The dreadful, haunting fear of a powerless man, caught in a trap beyond his utmost devising.

"If there were only something we could do!" he raged savagely. "But we're weaponless—helpless—we can't even die fighting, like strong men. I'd rather we had all died in the *Orestes* than that this should happen. You and I, Mallory, a feast for such foul things. Dorothy—"

He stopped, shaken, sickened. Dorothy's face was pale, but her voice was even.

"There is one thing he overlooked, Daddy. We still have the privilege of dying cleanly. Together. We can take off our suits. Here. Before they come for us."

Lane nodded. He knew what death by asphyxiation meant; he had seen men die in Earth's lethal chambers. But anything, even that, was better than meek surrender to the overlord's mad, lustful plan.

"Yes, Dorothy. That is the only way left to us." He thought for a moment. "There is no use delaying. But before we —we *go*, there is one thing I must say—" And he looked at his daughter and her lover in turn. "I was wrong in forbidding your marriage. You're a *man*, Mallory. It's too bad I had to learn that under such circumstances. But I want you to know—at the end—that if things had turned out differently, I—I'd change my mind."

Tim said quietly, "Thank you, sir." But his thoughts were only half upon the older man's admission. There was a tiny something scratching at the back of his mind. Something that had occurred to him, dimly, in the hot chamber above. He couldn't quite place his finger on it, but—

"I still find it in me to wish," said Captain Lane, "that you had been a spaceman. But there's no use talking about that now. What might have been is past. There remains only time to acknowledge past faults, and then—and then—"

He faltered. And Dorothy took up the weighty burden of speech.

"Shall we . . . do it now?"

Her hands lifted to the pane of her helmet. For an instant they hesitated, then began to turn. And then—

"*Stop!*" cried Tim. He struck her hands away, spun swiftly to the older man. "Don't do it, Skipper! I've got it! Got it at last!"

Lane stared at him dazedly. "Wh-what do you mean?"

Tim's sudden laughter was almost hysterically triumphant. "I mean that this is one time a 'groundhog engineer' knows more than a spaceman. There's no time to explain now, but quick!—you have some gun-capsules, haven't you?"

"Y-yes, but—"

"Give them to me! All you have. And hurry!"

AS he spoke, he was emptying his own capacious ammunition pouch. Capsule after capsule poured from it, until he had an overflowing double handful. With frenzied haste he broke the safety-tip off the first, tossed the cartridge into the stream that ran through their prison. As it struck, it hissed faintly; bubbles began to rise from the fluid, and a thin, steamy film of vapor rose whitely.

"Do that to all of them. Toss them in there! I'm right! I know I am. I *have* to be!"

Bewilderedly, Captain Lane and Dorothy began doing as he ordered. A dozen, a score, twoscore of the heat-gun cartridges were untipped, thrown into the coursing stream. The white film became a cloud, a fog, a thick, dense blanket about them, through which they could barely see each other. And still Tim's voice cried, "More! Faster! All of them!"

Then the last capsule had been tossed into the fluid, and their only contact with each other was by speech and the sense of touch. They were engulfed in rolling billows of white; vapor that frosted their view-panes, screened the world from view.

For half an hour they stood there waiting, torn with a thousand mingled doubts. Until, at last—

"I can't stand it any longer, Tim!" cried Dorothy. "What is it? What do we do? What is this wild plan?"

The vapor had thinned a trifle. And through gray mists, she saw a form loom before her. It was Tim's shape, and his hand stretched out to her. His voice was tense.

"Now—" he said. "Now we walk from our prison!"

And he flung open the door.

"Careful!" cried Captain Lane. "The guards, son! 'Ware the Harpy guards!"

But no guards sprang forward to bar their passage. There were guards, a dozen of them. But not a single one of them moved.

And Dorothy, wiping a sudden veil of hoar-frost from her view-pane, saw them and gasped.

"Dead!" she cried. "Tim—they're all dead!"

Tim shook his head.

"Not dead, darling. Just—sleeping! And now let's hurry. Before they waken again!"

WHEN they had reached the uppermost corridor of the caverns, they paused for a moment's rest. It was then that Captain Lane found time for the question that had plagued him.

"You were right, Tim. They were sleeping. I could see that overlord's noseleaf quivering with slow breath just before I shot him. But—but what caused it? Anesthetic? I don't understand."

"No," grinned Tim, "it was not an anesthetic. It was a simple matter of remembering a biological trait of bats, and applying a little technical knowledge. The knowledge—" He could not resist the dig. "The special knowledge of what you called a 'hot-and-cold' expert. Refrigeration!

"Bats are hibernating creatures. And hibernation it not merely a matter of custom, tradition, desire to sleep—it is a physical reflex which cannot be avoided when the conditions are made suitable.

"Bats, like many other hibernating mammals, are automatically forced into slumber when the temperature drops below 46°F. Knowing this, and realizing that was the reason the Harpies—bat-like in form and habit—kept their underground chambers superheated I applied an elemental principle of refrigeration to cool their city below that point!"

Dorothy said, "The—the ammonia—?"

"Exactly. The set-up was perfect. Our apparatus was, perforce, crude, but we had all the elements of a refrigerating unit. Ammoniated water, running in a constant stream, capsules of condensed and concentrated heat from our needle-guns—a small room which was connected, by ventilating ducts, with the rest of the underground city.

"The principle of the absorption process depends on the fact that vapors of low boiling point are readily absorbed in water and can be separated again by the application of heat. At 60° F., water will absorb about 760 times its own volume of ammonia vapor, and this produces evaporation, which, in turn, gives off vapor at a low temperature, thereby becoming a refrigerator abstracting heat from any surrounding body. In this case—the rooms above!

"It—" Tim grinned. "It's as simple as that!"

Captain Lane groaned.

"Simple!" he echoed weakly. "The man says 'simple'! I don't understand a word of it, but—it worked, son! And that's the pay-off."

"No, sir," said Tim promptly.

"What? What's that?"

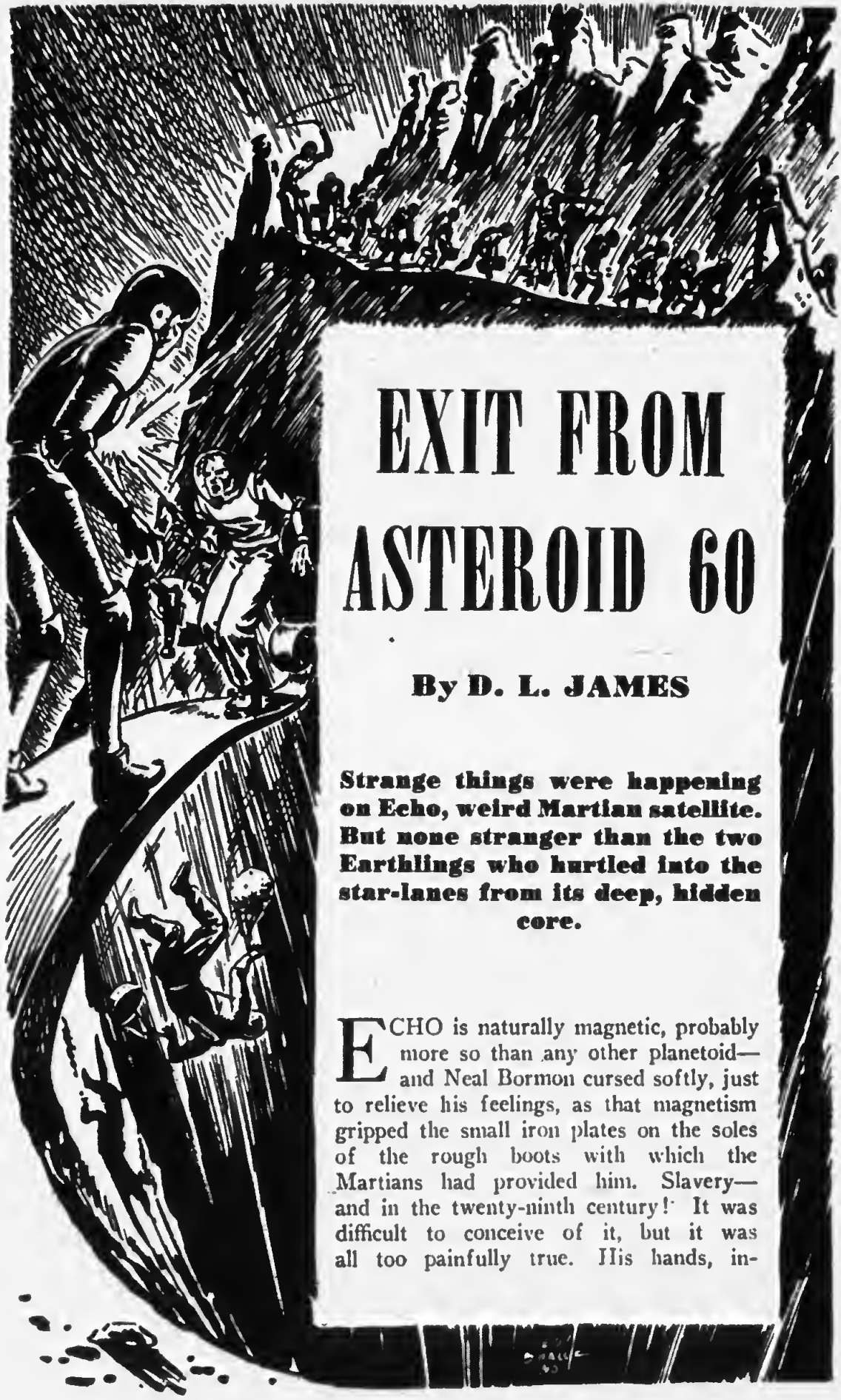
"The pay-off," persisted Tim, "comes later. When we get back to civilization. You said something about removing your objections to our marriage, remember?"

Captain Jonathan growled and stood up. "Confound it, do you think of everything? Well—all right, then. I'm a man of my word. But when we get back to civilization may be a long time yet."

"I can wait," grinned Tim. "But I've got a feeling I won't have to wait long. Maybe I'm psychic all of a sudden. I don't know. But somehow I've got a hunch that when we get to the cave-mouth, we're going to find a rescue party waiting for us up there. I just *feel* that way."

"Humph!" snorted Lane. "You're a dreamer, lad! A blasted, wishful dreamer!"

But it was a good dream. For the hunch was right.



EXIT FROM ASTEROID 60

By D. L. JAMES

Strange things were happening on Echo, weird Martian satellite. But none stranger than the two Earthlings who hurtled into the star-lanes from its deep, hidden core.

ECHO is naturally magnetic, probably more so than any other planetoid—and Neal Bormon cursed softly, just to relieve his feelings, as that magnetism gripped the small iron plates on the soles of the rough boots with which the Martians had provided him. Slavery—and in the twenty-ninth century! It was difficult to conceive of it, but it was all too painfully true. His hands, in-

side their air-tight gauntlets, wadded into fists; little knots of muscle bulged along his lean jaw, and he stared at the darkness around him as if realizing it for the first time. This gang had plenty of guts, to shanghai men from the Earth-Mars Transport Lines. They'd never get by with it.

And yet, they had—until now. First, Keith Calbur, and then himself. Of course, there had been others before Calbur, but not personal friends of Neal Bormon. Men just disappeared. And you could do that in the Martian spaceport of Quessel without arousing much comment—unless you were a high official. But when Calbur failed to show up in time for a return voyage to Earth, Bormon had taken up the search.

Vague clews had led him into that pleasure palace in Quessel—a joint frequented alike by human beings and Martians—a fantasmagoria of tinkling soul-lights; gossamer arms of frozen music that set your senses reeling when they floated near you; lyric forms that lived and danced and died like thoughts. Then someone had crushed a bead of reverie-gas, probably held in a Martian tentacle, under Bormon's nostrils, and now—here he was on Echo.

He gave an angry yank at the chain which was locked around his left wrist. The other end was fastened to a large metal basket partly filled with lumps of whitish-gray ore, and the basket bobbed and scraped along behind him as he advanced. Of the hundred or more Earthmen, prisoners here on Echo, only seven or eight were within sight of Bormon, visible as mere crawling spots of light; but he knew that each was provided with a basket and rock-pick similar to his own. As yet he had not identified anyone of them as Keith Calbur. Suddenly the metallic voice of a Martian guard sounded in Bormon's ears.

"Attention. One-seven-two. Your basket is not yet half filled, your oxygen tank is nearly empty. You will receive no more food or oxygen until you deliver your quota of ore. Get busy."

"To hell with you!" fumed Bormon—quite vainly, as he well knew, for the helmet of his space suit was not provided with voice-sending equipment. Nevertheless, after a swift glance at the oxygen gauge, he began to swing his rock-pick with renewed vigor, pausing now and then to toss the loosened lumps of ore into the latticed basket. On Earth, that huge container, filled with ore, would have weighed over a ton; here on Echo its weight was only a few pounds.

Neal Bormon had the average spaceman's dread of oxygen shortage. And so, working steadily, he at last had the huge basket filled with ore—almost pure rhodium—judging by the color and weight of the lumps. Nearby, a jagged gash of light on the almost black shoulder of Echo indicated the location of that tremendous chasm which cut two-thirds of the way through the small asteroid, and in which the Martians had installed their machine for consuming ore.

Locating this gash of light, Bormon set out toward it, dragging the basket of ore behind him over the rough, rocky surface.

The ultimate purpose of that gargantuan mechanism, and why this side of the planetoid apparently never turned toward the sun, were mysteries with which his mind struggled but could not fathom.

PRESENTLY, having reached the rim of the abyss, with only a narrow margin of oxygen left, he commenced the downward passage, his iron-shod boots clinging to the vertical wall of metallic rock, and as he advanced this magnetic attraction became ever more intense. The blaze of lights before him grew brighter and seemed to expand. Dimly, two hundred yards over his head, he could glimpse the opposite wall of the chasm like the opposing jaw of an enormous vise.

He joined the slow-moving stream of workers. They were filing past a guard and out on a narrow metal catwalk that seemed to be suspended—or rather poised—by thin rods in close proximity to a spacious disk which extended from wall to wall of the chasm. They moved in absolute silence. Even when tilted ore-baskets dumped a ton or more ore into the gaping orifice in the center of the disk, there was still no sound—for Echo, small and barren of native life, lacked even the suggestion of a sound-carrying atmosphere.

And that weird soundlessness of the action around him brought a giddy sense of

unreality to Neal Bormon. Only the harsh, mechanical voice of the Martian guard, intoning orders with cold and impersonal precision, seemed actually real.

"Attention. One-seven-two. Dump your ore. . . ."

These Earthmen were apparently known by numbers only. Bormon's own number —172—was on a thin metal stencil stretched across the outer surface of the glass vision plate of his helmet; he couldn't forget it.

He obeyed the Martian's order. Then he noticed that men with empty baskets were moving along a curved ramp, like a corkscrew, which led to a different level, whether above or below he could not possibly tell without a distinct mental effort.

He decided it was to a lower level as he moved onward, for the huge disk lost its circularity and became like the curving wall of a cylinder, or drum, down the outside of which the ramp twisted. Fresh ore was also being brought from this direction. And seeming to extend out indefinitely into blackness was a misty shaft, like the beam of a searchlight. Presently the ramp gave way to a tunnel-like passage.

Flexible metal-sheathed tubes dangled from the ceiling. These tubes were labled: OXYGEN, WATER, NUTRIENT.

BORMON, patterning the actions of those he observed around him began to replenish his supply of these three essentials to life. His space suit was of conventional design, with flasks in front for water and nutrient fluid, and oxygen tank across the shoulders. By attaching the proper tubes and opening valves—except the oxygen inlet valve, which was automatic—he soon had his suit provisioned to capacity.

He had just finished this operation when someone touched his arm. He glanced up at the bulky, tall figure—an unmistakable form that even a month's sojourn on Echo had not been able to rob of a certain virility and youthful eclat.

For a moment they stared into each other's eyes through the vision plates of their helmets and Bormon was struck dumb by the change, the stark and utterly nerve-fagged hopelessness expressed on Keith Calbur's features.

Then Calbur tried to grin a welcome, and the effect was ghastly!

For a moment his helmet clicked into contact with Bormon's.

"Neal," he said, his voice sounding far away, "so they got you, too! We can't talk here. . . . I'm pretty well shot. Lived in this damn walking tent for ages. No sleep, not since they took me. . . . Some powder, drug, they put in the nutrient fluid—it's supposed to take the place of sleep—and you can't sleep! Only it doesn't. . . . You come along with me."

The darkness swallowed them up. Bormon had thrown his rock-pick into his empty basket. And now, by keeping one hand in contact with Calbur's basket, as it bobbed and jerked on ahead, he was able, even in the inky blackness, to keep from straying aside.

After seemingly interminable groping and stumbling, Calbur's light flashed on. They had entered a pocket in the rocks, Bormon realized, a small cavern whose walls would prevent the light from betraying their presence to the guard.

Calbur threw himself exhaustedly down, signifying that Bormon should do likewise, and with their helmets touching, a strange conversation ensued.

Bormon explained, as well as he was able, his presence there.

"When you didn't show up, Keith, in time to blast for Earth," he said, "all we could do was to report your absence to the space police. But they're swamped; too many disappearances lately. Moreover, they're trying to relocate that stream of meteoric matter which wrecked a freighter some time back. They know something is in the wind, but they'll never guess this! For weeks they've had the patrol ship, *Alert*, scouting around Mars. So, after making the run to Earth and back to Mars—I had to do that, you know —I got back in Quessel again and commenced to pry around, sort of inviting the same thing to happen to me that had happened to you—and here we are."

"We're here for keeps, looks like," answered Calbur grimly, his voice having lost part of that overtone of strained nerves. "A man doesn't last long, so the other prisoners say, two months at the most. These Marts use Earthmen because we're tougher, here at least, and last longer

than Marts. . . . Hell, what wouldn't I give for a smoke!"

"But the purpose, Keith? What's the scheme?"

"I thought you knew. Just Marts with fighting ideas—a crowd backed by wealthy, middle-class Martians who call themselves Lords of Conquest. They're building ships, weapons. First, they're going to take over Mars from the present government, which is friendly to Earth, and then they're going to subdue Earth."

CALBUR had switched off his light, as a matter of precaution, and his voice came to Bormon from a seemingly far distant point—a voice from out of the darkness, fraught with fantastic suggestion.

"Ships? You say they're building ships? Where?" Bormon asked, his own voice reverberating harshly within the confines of his helmet.

"In a cavern they've blasted out near the south magnetic pole of Mars. You know that's an immense, barren region—lifeless, cold—bordered on the north by impenetrable reed thickets. They need rhodium in large quantities for hull alloys and firing chambers. That's why they're mining it, here on Echo."

"They'll never get it to Mars," Bormon declared quickly. "Every freighter is checked and licensed by the joint governments of Earth and Mars."

"They won't?" Calbur laughed, distantly. "Listen, Neal—every crateful of ore that's dumped into their machine, here on Echo, gets to Mars within a few hours. And it isn't carried by ships, either!"

"You mean—?"

"I didn't get the answer, myself, until I'd been here for some time. You see, Echo is just a gob of metal—mostly magnetite, except for these granules of rhodium—forty miles in diameter, but far from round. Then there's that chasm, a mammoth crack that's gaped open, cutting the planetoid almost in half. The whole thing is magnetic—like a terrestrial lodestone—and there's a mighty potent field of force across that gap in the chasm. The walls are really poles of a bigger magnet than was ever built by Martians or human being. And of what does a big magnet remind you?"

After a moment of thought, Bormon replied, "Cyclotronic action."

There was a short silence, then Calbur resumed. "These Marts shoot the ore across space to the south magnetic pole of Mars. A ground crew gathers it up and transports it to their underground laboratories. As a prisoner explained it, it was simple; those old-time cyclotrones used to build up the velocity of particles, ions mostly, by whirling them in spiral orbits in a vacuum-enclosed magnetic field. Well, there's a vacuum all around Echo, and clear to Mars. By giving these lumps of ore a static charge, they act just like ions. When the stream of ore comes out of the machine, it passes through a magnetic lens which focuses it like a beam of light on Mars' south pole. And there you have it. Maybe you saw what looked like a streak of light shooting off through the chasm. That's the ore stream. It comes out on the day side of Echo, and so on to Mars. They aim it by turning the whole planetoid."

"Hm-m-m, I understand, now, why it's always dark here—they keep this side of Echo facing away from Mars and the sun."

"Right," said Calbur. "Now we'll have to move. These Marts are heartless. They'll let you die for lack of oxygen if you don't turn in baskets of ore regularly. But we'll meet here again."

"Just give me time to size things up," Bormon agreed. The effects of the reverie-gas was wearing off and he was beginning to feel thoroughly alive again and aware of the serious situation which confronted them. "Don't let it get you down, Keith," he added. "We'll find a way out."

But his words expressed a confidence that the passing of time did not justify.

Again and again he filled his ore-basket, dragged it to the hungry mouth of that prodigious mechanism in the abyss, and in return he received the essentials for continued life.

During this time he formed a better idea of conditions around him. Once he wandered far from the Martian's headquarters, so far that he nearly blinded himself in the raw sunlight that bombarded the day side of the tiny planetoid. Again, he was strangely comforted with the discovery of a small space ship anchored deep

in the abyss although he was not permitted to go near it.

HE soon found that nothing was to be expected of the horde of Earthmen who slaved like automatons over the few miles of Echo immediately adjacent to the chasm's rim. The accumulative effect of the drug seemed to render them almost insensible of existence.

But with Calbur, who had served for a shorter time, it was different.

"Keith, we've got to tackle one of the Mart guards," Bormon told him, during one of their conferences in the cave. "We'll take its ray-tubes, fight our way to that ship they've cached in the chasm below the cyclotrone power plant, and blast away from here."

"How?" asked Calbur. "If you make a move toward one, it'll burn you down —I've seen it happen!"

"Listen, I've spent hours figuring this out. Suppose one of us were to stay here in this cave, helmet-light on, and near enough to the opening so that his light would show dimly on the outside. Wouldn't a Mart guard be sure to come along to investigate?"

"Yes, practically sure," agreed Calbur, but with no great interest. Hour by hour he was sinking closer to that animate coma which gripped the other Earthmen. "But what would that get you? If you lose too much time, you'll be cut off from rations."

"I know, but suppose also that one of us—I, for instance—was hiding in the rocks above the cave, with a big chunk of ore, ready to heave it down on the Mart?"

Calbur seemed to be thinking this over, and for a moment there was silence.

"When shall we try it?" he demanded suddenly, and there was a note of eagerness and hope in his voice. "It's simple enough. It might actually work."

"Right now! If we put it off, it'll soon be too late."

They discussed details, laying their plans carefully, Bormon prudently refraining any suggestion that this move was one born of sheer desperation on his part.

Everything settled, Calbur moved up near the opening, so that his helmet-light could be dimly seen from outside the cave. Bormon, dragging his ore-basket, climbed up in the rocks directly over the entrance, and presently found concealment that suited him. Near at hand he placed a loose chunk of rock which on Earth would have weighed perhaps eighty pounds. The trap was set.

He settled himself to wait. His own light was, of course, extinguished. Far off he could see crawling blobs of luminance as guards and human workers moved slowly over the surface of Echo. Otherwise stygian darkness surrounded him. But he had chosen a position which, he hoped. would not be revealed by the light of any Martian bent on investigating the cave.

There were, he had learned, actually less than a score of Martians here on Echo; about half of them stayed around that cyclotronic ore-hurler in the chasm. They depended on secrecy, and were in constant communication, by ether-wave, with spies not only on Earth and Mars but among the personnel of the space police itself. These spies were in a position to warn them to shut down operations in case the ore stream through space attracted notice and was in danger of being investigated. It was all being conducted with true Martian insidiousness.

Thus Bormon's thoughts were wandering when, at last, he became aware that a Martian guard was approaching. His cramped muscles suddenly grew tense. His heart began to pound; it was now or never —and he must not fail!

THE Martian, reeling along rapidly on the mechanical legs attached to its space armor, appeared to suspect nothing. It approached amid a rosette of light which seemed to chase back the shadows into a surrounding black wall. It had evidently seen the gleam of Calbur's helmet-light, for it was heading directly toward the mouth of the cave above which Bormon crouched.

The moment for action arrived. Tense as a tirhco spring, Bormon leaped erect, hurled the jagged lump of rock down on the rounded dome of the Martian's armor. Then, without pausing to ascertain the result, he grasped the rim of his ore-basket and swinging it in a wide arc before him, leaped downward—

For a moment Martian, basket and Earthman were in a mad tangle. Bormon realized that the Martian had been top-

pled over, and that one of its ray-tubes was sending out a coruscating plume of fire as it ate into the rocks. The moment seemed propitious to Bormon!

Hands gripping and searching desperately, he found the oddly-shaped clamp that bound the two halves of the Martian's space armor together—and released it.

There was a hiss of escaping gas. Abruptly those metal handlers ceased to thrash about. . . .

Bormon, thrilling with success, rose to his feet, turned off the Martian's ray-tube just as Calbur, delayed with having to drag his ore-basket, through the rather narrow opening, dashed into view.

There was no need for words. Bormon handed him a ray-tube.

Within a matter of seconds, each had burned through a link of the chain around his wrist. They were free from those accursed baskets! Calbut secreted the weapon in a pouch of his space suit, then swiftly they set to work, for their next move had been carefully planned.

Opening the armor fully, they began to remove the dead Martian, puffed up like a kernel of pop-corn by the sudden loss of its air pressure.

Having cleared the armor, Bormon climbed inside—space suit and all—folding up like a pocket knife so as to resemble somewhat the alien shape it was intended to hold, and tested the semi-automatic controls. Everything appeared to be in working order. Assuring himself of this as well as his knowledge of Martian mechanics would permit, he crawled out again to help Calbur.

Calbur was scrambling to collect ore. And under their combined efforts one of the baskets was presently filled—for the last time, Bormon fervently hoped!

Again he entered that strange conveyance, the Martian's armor, and after some experimental manipulation of the push-button controls, managed to get the thing upright on its jointed, metal legs and start it moving awkwardly in the direction of the chasm.

Behind him came Calbur, dragging the basket of ore—for lacking a disguise such as Bormon's, he must have some excuse for returning to the cabin, and he had wrapped the chain around his wrist to conceal the fact that it had been severed.

Bormon, in the narrow confines of his armor, disconnected the mechanical voder used by its deposed owner, for all Martians are voiceless.

His greatest fear was that one of the Martian guards would attempt to communicate with him. This would disclose the imposture immediately, since he would be unable to reply. For all Martian communication, even by ether-wave, is visual—the medium being a complicated series of symbols based on their ancient sign language, the waving of tentacles, which no human brain has ever fully understood. The means of producing these conventionalized symbols was a tiny keyboard, just below an oval, silvery screen, and as Bormon sent his odd conveyance stalking down the side of the chasm, toward that sweeping disk which he now knew to be formed by the ends of two cyclotronic D-chambers facing each other, he kept one eye on this silvery screen, but it remained blank.

He moved on down past the catwalk to the lower ramp. Here he must pass close to a Martian guard.

But this Martian seemed to give him no attention whatever.

Reaching a point opposite the ship, Bormon stepped from the ramp. Still that oval screen remained blank. No Martian was apparently paying enough attention to him to question his movements.

Again he caused the armor to advance slowly, picking his way along the rock surface. He reached the ship.

For a moment he was hidden behind the hull. One glance sent his hopes plunging utterly. Neither of the two fuel caps were clamped down, which could mean but one thing—the ship's tanks were empty!

It was a stunning blow. No wonder the Martians felt safe in leaving the ship practically unguarded. After a moment, anger began to mount above Bormon's disappointment. He would start to kill off Martians! If he and Calbur couldn't get away from Echo, then he'd see that at least some of these Marts didn't either. He might even wipe them all out. Calbur, too, had a ray-tube.

But what of Calbur? Quickly Bormon moved from behind the ship. Calbur was loitering on the ramp, ore-basket empty.

evidently on the point of making a break to join him.

Frantically, Bormon focused the etherwave on Calbur's helmet, hurling a warning.

"Stay where you are. It's a washout! No fuel. . . ."

He began moving across the rocks toward the power-plant. That was the most likely spot to commence—more Marts close at hand. He'd take them by surprise.

Suddenly he was cold, calculating, purposeful. After all, there wasn't much chance of wiping them all out—and yet he might. He should strike at a vital point, cripple them, so as to give Calbur and the others a chance in case he only managed to kill a few before passing out of the picture.

A glittering neutrochrome helix on top of the power-plant gave him a suggestion. Why not destroy their communications, fix things so they couldn't call for help from Mars?

ABRUPTLY he realized something was wrong. That silver oval six inches from his face was flashing a bewildering complexity of symbols. Simultaneously the Martian on the ramp began to move quickly and questioningly toward him.

The moment had arrived. Bormon swung the metal handler bearing the ray-tube into line and pressed the firing button. . . .

Amid a splatter of coruscating sparks the Martian went down.

"Number one!" growled Bormon. Everything now depended on prompt action and luck—mostly luck! As quickly as possible he heeled around, aimed at the helix on the power-plant. It swayed slowly as that pale blue shaft ate into its supports, then drifted away.

He had lost sight of Calbur. Absolute silence still reigned, but on airless Echo that silence was portentous. Along the rim of the chasm he could see the glitter of Martian armor against the blackness of space. The alarm had been given. But for the moment he was more concerned with the imminent danger from those who tended the intricate controls in the power-plant, and the guard at the far end of the catwalk. This guard was protected by the catwalk itself and the stream of Earthmen slaves still moving uncomprehendingly along it. Bormon sent his space armor reeling forward, intent on seeking shelter behind the bulk of the power-plant.

He almost reached that protection. But suddenly sparks plumed around him, and his armor slumped forward—one leg missing. He fell, fortunately, just within the shelter of the power-plant.

Desperately he struggled to open the armor, so as to get the ray-tube in his own hand. But when he finally crawled forth it was to face three Martians grouped around him, their weapons—six in number—unwaveringly centered on him.

"Earthman," said the mechanical speaker coldly inside his helmet, "you have killed a Martian."

And then, with true Martian decisiveness and cruelty, they pronounced inhuman judgment on him.

"We in our kindness shall not immediately demand your life as forfeit. You shall wander unhindered over Echo, dying slowly, until your oxygen is gone. Do not ask for more; it is sealed from you. Do not again enter the chasm; it is death to you. Now go."

HOURS later Bormon was indeed wandering, hopeless as a lost soul, over nighted Echo, awaiting the consummation of his sentence, which now seemed very near. Already his oxygen gauge indicated zero and he was face to face with the "dying slowly" process promised by the Martians—the terrible death of suffocation.

Now, as things began to seem vague and unreal around him, Bormon was drawing near that hidden cave where he and Calbur had often met for like a final flash of inspiration had come the thought that here, if anywhere, he would find Calbur.

It was strange, he reflected, how the life in a man forces him on and on, always hoping, to the very end. For now it seemed that the most important thing in the universe was to find Calbur.

He had husbanded the last of his oxygen to the utmost. But panting, now, for breath, he opened the valve a fraction of a turn and staggered on in the darkness. And suddenly, dimly as in a dream, he knew that at last he had found Calbur. . . .

And Calbur was doing a queer thing.

Gauntleted hands moving hastily in the chalky radiance cast by his helmet-light, he was tossing chunks of rhodium from his filled ore-basket—

Then their helmets clicked together, and he heard Calbur's voice, faint, urgent:

"Climb in the basket! I'll cover you with ore so they won't see you. I'll drag you in. We'll get your tank filled—I swear it!"

The next instant, it seemed, Bormon felt himself being tumbled into the ore-basket. Chunks of ore began pressing down lightly on his body. Then the basket commenced to pitch and scrape over the rocks.

But his lungs were bursting! Could he last? He had to. He couldn't fool Calbur by passing out—not now. Something like destiny was working, and he'd have to see it through.

Something was tapping on his helmet. Bormon opened his eyes, and light was trickling down between the chunks of ore. No longer was there any scraping vibrations. Something, metallic, snakelike, was being pressed into his hand.

And then Bormon remembered. The oxygen tube! With a final rallying of forces only partly physical, he managed to stab the tube over the intake of his tank. The automatic valve clicked and a stream of pure delight swept into his lungs!

For a time he lay there, his body trembling with the exquisite torture of vitality reawakening, slowly closing the helmet-valve to balance the increase of pressure in the tank.

Suddenly that snakelike tube was jerked away from between the chunks of ore, and again the basket began a scraping advance.

Bormon's new lease on life brought its problems. What was about to happen? In a moment, now, Calbur would be ordered by the guard to dump his ore. They wouldn't have a chance, there on the catwalk. For Bormon's abrupt reappearance would bring swift extinction, probably to both.

The basket stopped. They had reached the ore-dump. Calbur's head and shoulders appeared. Behind the vision plate in his helmet there was a queer, set expression on his thin face. He thrust the ray-tube into Bormon's hands.

Bormon sprang erect, leaped from the basket. For a moment he stared around, locating the guard at the end of the catwalk. As yet the guard appeared not to have noticed anything unusual. But where was Calbur?

"Attention. One-six-nine. Dump your ore," ordered the guard, coldly, mechanically.

Something seemed to draw Bormon's eyes into focus on his own number stencil. One-six-nine, he read. Calbur's number! And then, suddenly, he realized the dreadful, admirable thing Keith Calbur had done. . . .

For Calbur had leaped through the ore-chute, into the cyclotron's maelstromic heart! Despairing, he had chosen a way out. He had forfeited his life so that Bormon could take his place.

"Dump your ore," repeated the Martian guard, coldly.

"To hell with you!" snarled Bormon, and blasted with the tube.

He missed the Martian. Still weakened by the ordeal he had just passed through, and overwrought as an effect of Calbur's last despairing act, his aim was not true. Nevertheless, that coruscating shaft was fraught with far-reaching consequence. Passing three feet to the left of the Martian, it snapped two of the rods which braced the catwalk in position over the cyclotron drum. Thus released at the far end, the metal ribbon—for the catwalk was little more than that—curled and twisted like a tirhco spring, pitching Bormon, as from a catapult, straight along the path so recently chosen by Calbur.

Destiny had indeed provided them both with a strange exit from Echo, for in that split second Bormon realized that he was being hurled squarely into the gapping orifice of the cyclotron.

FAR out in the vacuity between Echo and Mars, Captain Dunstan sat in his cabin aboard the Patrol Ship *Alert*—most powerful and, therefore, speediest craft possessed by the Earth-Mars Space Police.

On his desk lay two jagged pieces of ore, whitish-gray in color, which he had been examining.

His speculations were interrupted by the sudden bursting open of the cabin door. An officer, spruce in gray uniform and

silver braid, entered hurriedly, his face flushed with excitement.

"Captain Dunstan, the most extraordinary thing has happened! We've just picked up two men—two men drifting with the meteoric stream, and in space suits—and they're alive!"

Captain Dunstan rose slowly. "Alive, and adrift in space? Then it's the first such occurrence in the history of space travel! Who are they?"

"I don't know, sir. So far we've got only one out of his suit. But I have reason to believe they're the men recently reported as missing by the E.M.T. Lines. He babbled something about Echo—that there's hell to pay on Echo. I imagine he means Asteroid No. 60. But—"

"Lead the way," said the captain, stepping quickly toward the doorway. "There's something mighty queer going on."

AND so, by a lucky break, Neal Bormon found himself snatched from death and aboard the *Alert,* arriving there by a route as hazardous and strange as was ever experienced by spaceman.

And no less strange and unexpected came the knowledge of Keith Calbur's arrival there ahead of him.

Bormon, who was last to be drawn in by the grapple-ray and helped out of his space suit by the willing hands of the *Alert's* crew, was still capable of giving an understandable account of things; although Calbur, until the effects of the Martian drug wore off, would be likely to remain in his somewhat neurotic condition of bewilderment.

"These Marts," said Bormon, after a great deal of explaining on both sides, "don't know that you have discovered their stream of ore. They won't know it until their communications have been repaired."

Captain Dunstan nodded. "That explains why we were able, on this occasion, to approach the meteoric stream without its immediate disappearance. But I cannot understand," he confessed, "how two men could have passed through such an apparatus as you describe, and remain alive."

"Perhaps I can offer a possible explanation," said an officer whose insignia was that of Chief Electrobiologist. "If, as we suspect, this Martian invention is founded on the old and well-known cyclotronic principle, then we have nothing but reciprocal interaction of electric fields and magnetic fields. And these fields, as such, are entirely harmless to living organisms, just as harmless as gravitational fields. Moreover, any static charge carried by the bodies of these men would have been slowly dissipated through the grapple-ray with which they were drawn out of the ore stream."

This explanation appeared to satisfy the captain. "You say," he questioned, addressing Bormon, "that there are other men on Echo—Earthmen being used as slaves?"

"Yes, more than a hundred."

Captain Dunstan's mouth became a fighting, grim line. He gave several swift orders to his officers, who scattered immediately.

Somewhat later, Bormon found his way into the surgery where Calbur lay—not sleeping yet, but resting peacefully.

Assuring himself of this, Bormon, too, let his long frame slump down on a near-by cot—not to sleep, either, but to contemplate pleasantly the wiping-up process soon to take place on Echo, and elsewhere.

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Phantom of the Seven Stars

By **RAY CUMMINGS**

Lovely Brenda Carson, scholarly Jerome, pompous Livingston . . . everyone aboard the *Seven Stars* scoffed at the idea of a Phantom Pirate. But I.P. agent Jim Fanning didn't laugh. He knew the luxury-liner's innocent looking cargo was already marked for plunder.

PART of my assignment on this space-flight of the *Seven Stars* was to watch the girl. That much, at least, wasn't hard. She was certainly easy to look at—a little beauty, slim with a pert, oval little face framed by unruly pale-gold hair. With mingled starlight and earth-light gleaming in that hair it was like spun platinum. Her name was Brenda Carson. Certainly she was an inspiring figure to any young man, in her white blouse and corded black and white trousers and her long black traveling cape with its hood dangling at the back of her neck and the cape folds flowing from her slim shoulders almost to the ground.

We were several days out from New York, with Mars, our destination, hanging like a great dull-red ball among the blazing stars in the black firmament ahead of us, when I first noticed that there was anything queer about Brenda. We were sitting under the glassite pressure-dome on the forepeak of the *Seven Stars*, bathed in the pallid starlight. By ship-routine it was mid-evening.

I gestured toward one of the side bull's-eyes of the bow-peak. "Gloomy-looking world, that Asteroid-9," I said.

The little asteroid, one of the many out here in the belt between the orbits of Earth and Mars, was a small leaden crescent of sunlight with the unlighted portion faintly putty-colored. It was, I knew, a world some five hundred miles in diameter, amazingly dense so that its gravity was not a great deal less than Earth. A bleak, barren little globe. It had an atmosphere breatheable for humans; there was water —occasional rainfall; but chemicals in the cloud-vapors poisoned the water for human consumption. The rocks were heavily laden with metals. But they were all base metals, of no particular value. So far as I knew, nobody had ever bothered to settle on Asteroid-9. It was completely uninhabited.

"Asteroid-9?" Brenda murmured. "Is that what it's called?"

Something in my chance remark had frightened her. Her blue eyes as she flung me a quick, startled glance were suddenly clouded with what might have been terror.

Her brother Philip was with us. He said quickly, "Asteroid-9? Somebody said we pass pretty close to it this voyage." He laughed. "Rotten sort of place, by what I've heard. You can have it and welcome."

I must explain that I was—and still am —an IP Man. My name, Jim Fanning. I was assigned as Lieutenant to Patrol-ship-2. I had been on vacation, in New York. My ship, one of the biggest in the Interplanetary Patrol, was on roving duty now, out somewhere in the vicinity of Mars. Then suddenly an emergency with the *Seven Stars* had arisen. Chief Rankin had planted me on her. Only the captain knew my identity. To the dozen or so passengers, I was merely a young civilian traveler.

"I've never been to Asteroid-9," I was saying. And I, too, laughed casually. "I agree with you, Carson. Nice place to die in, but I guess that's all."

There was no question but what Brenda was trying to hide her sudden emotion. Terror? Was that it? We said no more about the asteroid; chatted of other things, and presently we were joined by another of the passengers.

"Ah, beautiful night," he greeted us. "I never get tired of the glories of the starways. Good evening, Miss Carson." He nodded smilingly to Philip Carson and me, and drew up a chair with us. His name was Arthur Jerome, well-known to me, though I had never before met him. He was a big, florid, distinguished-looking man of forty-odd; an habitual Interplanetary traveler, who between flights lectured over the earth television networks on things astronomical.

We talked for a while, and then suddenly Arthur Jerome said, "Nobody mentions the Phantom bandit. You know, if anything could spoil my interest in Interplanetary travel, it's to have a weird thing like that come up."

"Phantom bandit?" Brenda Carson murmured. "Is there—is there really such a thing?"

Arthur Jerome shrugged. "Naturally it's had no publicity. But things get out. Those last three accidents to space-liners —you can't hide that sort of thing. And you wouldn't call it supernatural. Or would you?"

THE Phantom of the starways! That was the crux of my being here on the *Seven Stars*. Weird, mysterious thing —no wonder the Earth, Mars and Venus governments had not dared let it get any publicity which they could possibly avoid. For three months now, this Earth-year of 2170, mysterious accidents had been happening to commercial space-ships. Non-arrival at destination, and then later found by the Interplanetary Patrol, derelicts in space. Gruesome damn' thing. A ship unharmed, save that its air was gone. As though some mysterious accident had broken one of the pressure valves, or deranged the machinery of an exit-porte, so that the air had all hissed out. Ship of the dead. Everyone aboard lying asphyxiated.

It was eerie.

A "ghost-vessel" attacking the liners? A modern version of the ancient *Flying Dutchman* legend? Radio newscasters talked of things like that. A vengeful ghost-ship roaming the starways, with dead pirates aboard, bent on attacking the living navigators whom they hated just because they were alive. It made nice

gruesome broadcasting to give the television audience the shivers. Supernatural legends easily get support. Particularly from hysterical, imaginative women, or cranks who crave publicity. Reports had come from amateur astronomers who owned fairly decent telescopes that they had seen the wraith of a pallid ghost-ship hovering up in Earth's stratosphere; passengers on liners had hysterically thought they saw the same thing.

A supernatural menace. But no reputable observer had ever seen anything. Our Interplanetary Patrol was completely baffled. And what the public didn't know was that those wrecked vessels—one of them, at least—had shown evidence that it had been hit by an electronic space-gun with a range of several hundred miles, which had broken the pressure-dome and let the air out. And in every case the wrecked ship was looted; the passengers' money and jewelry gone; the Purser's safe rifled.

"Anyway, it's a good thing for us," Arthur Jerome was saying, "the little *Seven Stars* ought not to be much of a prize for the phantom raider." He grinned, with his hand ruffling his sandy hair. "Let's hope we escape."

The *Seven Stars* not much of a prize? It was certainly reasonable enough to think that. We had a few Martians in the second-class section, and a few Earthmen passengers; and just an average commercial cargo. That's what anyone would think; and only the captain and I knew differently. Our cargo was anything but average. The boxes, as they had come aboard and been stored in the hold, were labeled as American preserved food-stuffs; technical commercial instruments, German-made prisms, lenses and the like. But in reality those boxes were crammed only with modern electronic weapons of war. It was a shipment purchased by the Martian government which was faced by the insurrection of its wealthy colony on Deimos. They were unusual weapons of exclusive Earth-manufacture. Small, for short-range, hand-use only; weapons to disable, but not injure. The recently publicized so-called "paralysis gun" was one of them. The Martian government, humane at least in battle with its own people, desperately needed this type of weapon in its forthcoming invasion of Deimos to subdue the rebels.

NOT much of a prize, our little commercial liner *Seven Stars* this voyage? Just the opposite! Those rich colonists of Deimos most certainly would pay well to keep this shipment away for Mars! Would news of it have leaked out? Would the Phantom of the Starways attack the *Seven Stars* for just that purpose? Chief Rankin, of the Interplanetary Patrol, certainly thought it a possibility. He had put me aboard here; and as only the Captain and I knew, my ship—Patrolship-2—had been ordered to join us out here somewhere and convoy us to Mars. Convoy us against an attack by an enemy that you couldn't see!

"The Phantom raider!" Young Philip Carson was echoing Arthur Jerome's lugubrious words. "You suppose there is really any such thing?" I saw him exchange a glance with his sister. He laughed, but it wasn't much of a success.

"I doubt it," I agreed. 'So far as I ever heard, those accidents were—well, just accidents. An air-valve can go wrong, you know, and dump the air out of a ship. Air goes quickly, and with a pretty powerful rush, if it once gets started. . . . Gruesome kind of talk, Miss Carson," I added lightly.

She tried to smile. My heart went out to her in that moment. Her beauty, I suppose; but somehow she seemed horribly pathetic. That mention of Asteroid-9 mysteriously frightened her; and now this mention of the phantom spaceship terrified her even more.

"You're right," Arthur Jerome agreed. "The supernatural is fascinating Or a thing that you can't see but still can kill you—that's just as gruesome."

"And fascinating?" Philip Carson put in sourly. "Well, it may be to you, but it's frightening my sister. Let's talk of something else."

Then another passenger joined us. That girl was a magnet to men.

"Well, well, Miss Carson," he boomed as he came up. "You are looking very beautiful in the starlight." He sat down with us. His name was Walter J. Livingston—the Very Honorable Walter J. Livingston to give him his official title.

He had just been appointed by the President of the World-Federation as Earth Ambassador to the Martian Government; was on his way there now to present his credentials. He was a big, heavy-set fellow, with a mass of iron-gray hair, a ribbon across his ruffled shirt-bosom; and the out-jutting jaw and booming voice of a born politician. Did he by any chance know the contents of the *Seven Stars'* cargo, this voyage? So far as I had been informed, he did not. I studied him now, and instinctively I didn't like him—possibly because of the extravagant compliments he was paying Brenda Carson.

The talk went on, and presently as I glanced up to the little control tower under the pressure-dome above us, I saw the bulky figure of Captain Wilkes standing there. He caught my gaze and furtively gestured. I excused myself in a moment; sauntered down the narrow side deck, turned a distant corner of the little superstructure. Then I went up to its roof, and forward again. In a moment I was in the control tower.

CAPTAIN WILKES was there, seated alone with his electro-telescope beside him. He slid the oval doors closed upon us.

"Your ship's in sight," he greeted me. "Thought you'd be interested."

Patrolship-2, coming to convoy us. I took a look through the eye-piece of the telescope. Familiar vessel on which I had spent so many months. Its long cylindrical alumite hull, with the pressure-dome over its single upper deck, was painted by sunlight on one side and starlight on the other as it headed diagonally toward us. By the range-finder on the telescope I measured its visual length.

"Ten thousand miles off us," I said to the captain.

"Yes. Just about. Now listen, Fanning—there'll be no contact. It will circle us, close at hand. If the passengers ask you why we need any convoy—we don't want any panic here you know."

What he had in mind about explaining this convoy was never disclosed. He was staring through a duplicate eye-piece, and suddenly his words were checked as he sucked in his breath.

"Good Lord, Fanning—"

I saw it also—a tiny puff of electronic light at the top of the oncoming patrolship's dome. There was nothing else to be seen. I searched the starfield in that second of premonitory horror. Absolutely nothing visible. Just that puff of light where an electronic shot must have struck.

"Fanning—you saw that?" Captain Wilkes murmured.

"Yes."

Another few seconds. It seemed an eternity. And then the Patrolship wavered; drunkenly lurching and slowly turning over! Ghastly silent drama, out there in space ten thousand miles away. We could not see its details; just the tiny image of the ship, lurching, turning end over end.

A derelict in space. My horrified imagination pictured the air hissing out, spewing wreckage and bodies out perhaps. Ship of the dead, all in those seconds. Then it was hanging poised, slowly turning on a drunken axis of its own. The leprous, smashed dome was for a moment visible as it turned.

The Phantom raider had struck again!

MY comrades. Thirty of them meeting their deaths out there in that moment. The thought numbed me. Captain Wilkes had leaped to his feet.

"Why—why, good Lord, it got them! And now—us next!"

Our convoy gone. Unquestionably that was because the phantom was after us!

"What are you going to do?" I murmured. "Not tell the passengers—"

"Good Lord, no. Nor the crew. What good would it do? We're not armed with long-range guns—no preparations to make. Only spread panic maybe among my men. Some of them might want to try and persuade me to turn back to Earth."

"And you're not going to do that?"

"Hell, no." Captain Wilkes was a choleric fellow. His ham-like fist crashed down on his desk. "I was told to run this cargo to Mars, and by Heaven, Fanning, that's what I'm going to do. Make a run for it." He swung for his controls. "I can use a greater Earth-repulsion and once we get past Asteroid-9, by a little jockeying I can use that, too. We'll see if there's any damn' phantom-ship going to overtake us."

It was a weird, gruesome feeling, realization that in all probability we were being pursued by something we couldn't see. Something still ten thousand miles away. Could it overtake us? Certainly not in less than a few hours, perhaps not even in a day. And then, would there be a flash of an electronic space-gun, weirdly from its unseen source? The crash of our hull, or our pressure-dome exploding outward; the wild rush and hiss of our air out into the vacuum of space? And then death by suffocation all in a minute or two.

The thing had me shuddering. I must have been murmuring something of my thoughts, for Captain Wilkes retorted:

"If they crash us with a shot they might very easily injure the cargo. More apt to try running in close to us—a boarding party with powered pressure-suits." His fist thumped his desk again. "An' by Heaven, if they try that—you got a gun, Fanning?"

"Yes," I agreed. I had a small weapon of the paralyzer-gun type, efficient at a few feet of range. But of what use against an enemy you couldn't see?

Wilkes presently dismissed me. "You keep your own counsel," he told me. He lowered his voice. "By what your Chief Rankin intimated, there's at least a reasonable possibility that we've some damn' spy on board."

"Well, if that's a fact," I said, "the Phantom won't try cracking us with a long-range gun and killing the spy as well as the rest of us."

"Exactly. That's what I'm counting on. Keep your eyes open and your ears stretched. Report to me anything that looks queer."

I LEFT him presently. Dogged, indomitable old fellow. He was seated grimly at his desk with his astronomical charts as he figured by what ingenuity he could map an emergency course to give the little *Seven Stars* its greatest speed. The ship was silent as I padded the length of the superstructure roof and went down to the stern triangle. By ship-routine it was now about eleven at night. The Martian passengers were out of sight, sleeping probably. None of the crew were about, save the man in the aft peak with his small, wide-angle telescope. The wreck of the patrolship was certainly far beyond sight of the naked eye. This stern lookout evidently hadn't spotted it, and in a moment now I knew it would be beyond his range also. The captain and I, doubtless, were the only ones who knew what had happened.

I went forward along the side deck. In the men's smoking lounge, amidships in the superstructure, I heard voices, caught a glimpse as I went past of Arthur Jerome, the television lecturer, and Livingston, the Earth Ambassador to Mars, in there with Green, the ship's purser. Did that mean that Brenda Carson and her brother were still on the forward peak? I went cautiously forward. They were there—the blobs of them, faintly starlit, showed where they were standing together at one of the side bull's-eyes. Upon impulse, instead of joining them, I slid unseen into the shadows of a loading engine.

"Oh, Philip—" The girl's voice was faintly audible in the silence. "I'm so frightened. You think we can do it safely?"

"Yes, of course. I'll make sure—" He lowered his voice and I lost the rest of it.

"When?" she murmured.

"I'll just take a look presently. We're not there yet—closer in a few hours."

What, in Heaven's name, could that mean? Were these two spies, planted here on the *Seven Stars* by the phantom-bandits? Were they discussing the attack which Captain Wilkes and I feared? Certainly it did not seem so. Young Philip Carson wasn't much older than his sister. Slim, handsome, rather effeminate-looking fellow, with a weak jaw and slack mouth. He wore black and white trousers, somewhat like hers. He and she seemed devoted to each other. Rankin had told me that Philip Carson had a bad record of gambling and bad companions. Was the girl entangled because of him?

My mind went back to the meager details which Rankin had given me. Brenda and Philip Carson came of a cultured and once-rich family in New York. Their father—their only close living relative—had been a research physicist. An eccentric old fellow; he had built a laboratory down on Long Island where, working in secret, he was laboriously experimenting

on something. Two years ago the place had exploded. Presumably he had been killed. But in the wreckage his body had not been found; nor was there anything to give a clue as to what he had been doing there.

Had he been building the phantom space-raider? The thought was obvious now. Brenda and Philip had denied knowing, when the authorities had questioned them. And now they were going to Mars, on this of all voyages, and for no reason that they had been able to give. Was the vanished eccentric Professor Robert Carson the Phantom raider? My heart leaped as I heard another fragment from the girl.

"You think you got his message correctly?"

"Yes, of course I did."

"If we can do it safely—Oh, Phil—the location."

"I've got it all figured out, Bren," he insisted. "Even made a little map—got it in the wallet of my jacket."

That stiffened me. I could see the blob of him standing there with her. The folds of his hooded cape, like hers, fell almost to his feet. But his arm held the cape draped a little to one side. I could see his white shirt; he was wearing no jacket. It would be in his sleeping cubby then.

For a moment more I crouched in the shelter of the little loading engine; I caught a few more fragments, but they were not important.

A WALLET in young Carson's cubby, with a map in it? I shifted silently backward, reached the side decl. and padded aft. The smoking lounge was empty now. The little interior cross corridor of the superstructure was dim and silent. Carson and his sister had connecting rooms, with corridor doors side by side. Cautiously I tried them. They were locked.

In a moment I was out to the side deck. Carson's window was closed; I pulled at the vertical sash and it yielded, slid outward. The room was dim, with just a faint glow of the corridor light coming over the lattice-grille above the door.

I jumped over the sill; landed silently in the room. No need for any lengthy search; his jacket was here, folded on a chair. The wallet was in a pocket. Swiftly I riffled through it, came upon a folded square of notepaper. The map? I was opening it. By the dim sheen of reflected light I could see its penciled scrawl. And suddenly I was stricken by the sound of footsteps in the corridor outside. Someone coming. I jumped on the chair. Through the grille I could catch a glimpse of a cloaked figure coming along the corridor. Carson or the girl—in that second I could not tell which.

But at all events I had no desire to get caught here by either of them. I got back out the window just in time. Aft down the side deck there was the blob of a loitering figure, a big, bulky silhouette. It was Walter Livingston, the Earth-Mars Ambassador. The tip of his cigarette glowed in the dimness as he stood by one of the side bull's-eyes. Was he watching these windows of Carson and the girl? Did he see me? I had no way of telling. I ran forward, ducked around the superstructure corner. The bow-peak triangle was empty; the chairs where the group of us had been sitting were stil here.

There was enough light for me to examine the folded sheet of paper I had purloined. It seemed a crude map. A rough, penciled sketch. But a map of what? There were the ragged outlines of what might be intended to represent mountains. The scribbled word: "Andros." A dotted line through what might be a mountain pass. And then a tiny X.

I stared at the thing, puzzled. A few hundred years ago the fabled surface-ship pirates of Earth's romantic sea-history supposedly made maps like this. Maps of buried treasure. Pirates' gold. Were Carson and his young sister after some treasure? Where? On Earth? Mars? Little Deimos? Asteroid-9? That thought leaped at me. Certainly they had shown a queer interest in my chance remark about Asteroid-9. We were not far from it now. Fifty thousand miles perhaps—would pass at our closest point to it in an hour of two. I stared through the bull's-eye beside me. It was down there, diagonally ahead of us—a full-round, putty-colored disk, with the configurations of its mountains and the turgid clouds of its atmosphere beginning to be visible.

But what could any of that have to do

with the Phantom raider, or the attack on the patrolship and the impending attack upon us? Surely there was no treasure on Asteroid-9. The treasure, if you could call it that, was right here on board the little *Seven Stars.*

I was crouching now in the shadow of the loading engine on the bow-peak, puzzled by my rush of thoughts. Should I take this to Captain Wilkes? Vaguely I realized that perhaps I should, but something stopped me. My own instinctive feelings for Brenda Carson. She seemed somehow so pathetic. Surely she was no plotting murderess. Her brother—yes. But the girl—protecting someone she loved? Was her father really the Phantom raider? His invention an X-flyer endowed with mechanical, electronic invisibility? I knew that such a thing was scientifically possible, of course. But Professor Carson was a frail old man. And my mind leaped back to some other things Chief Rankin had told me. The Phantom was thought to be a notorious Earth-criminal who, a few years ago, had been known as the "Chameleon." A fellow skilled in the art of wax disguise so that none of the Earth crime-trackers really knew what he looked like. He was wanted in both Great New York and Great London for mail-tube murders. Nothing was known of his identity save that he had once had an operation for a fractured skull, where in the back of the skull a big triangular platinum plate had been inserted to take the place of the shattered bone. A criminal surgeon, dying, had confessed that much; had said he had performed the operation. And then he had mumbled something about the Chameleon being the Phantom raider.

Surely such a notorious skilled adventurer could not be old Professor Carson. I decided not to have Brenda and Philip hauled before the captain now for questioning.

THOUGHTS are instant things. I was crouching there behind the engine loader no more than a moment; and suddenly down the other side deck just beyond the smoking lounge, I saw a moving figure. A slight figure in dark cloak and hood—the bottoms of black and white trousers were visible. Brenda? It made my heart pound. For a second I stared as she ducked into a doorway. I was there in twenty seconds, until I saw the cloaked shadow of her going down a companion ladder into the ship's hold.

Swiftly I followed. Down two eight-foot levels, and then I caught another glimpse of her as she moved into the lower passage. It was a metal catwalk with small cubbies opening from it. The ship's air-renewers, ventilating system; a cubby controlling the hull gravity-plate shifters; other mechanism rooms. She went past them, a furtive little shadow. And stopped at what seemed the door to one of the tiny pressure chambers of an exit-porte in the side of the hull.

"Oh, you, Mr. Fanning? What do you want down here" The voice in the silence so startled me that I whirled. It was Kellogg, the ship's gravity-control operator. In his shirtsleeves, pipe in hand, with a green eyeshade on his forehead, he had seen me from the door of his little cubby.

"Why—" I murmured. "Just coming down to see you." I turned to join him. And suddenly a buzzer in his control room interrupted him. I stood while he answered it—an audio-tube for direct voice-transmission.

"Yes, Captain Wilkes—" And then Kellogg gasped and clutched at the table beside him; then he whirled upon me, his face chalk-white. "Our radio-helio is smashed! Someone—something smashed it!"

Our little *Seven Stars* was cut off from Earth or Mars communication! Captain Wilkes had evidently decided to flash a call for help to Earth, and found that the apparatus had been smashed! But even that startling news instantly was stricken from Kellogg and me. Out in the corridor quite near us a low scream sounded! And then there was the sound of air hissing!

"What the devil!" Kellogg gasped.

My gun was in my hand as we ran. There was nothing in sight on the dim little catwalk. The scream had died. The air-hissing stopped.

"Somebody went into the pressure-chamber!" Kellogg muttered. "What in the hell—"

"The pressure-chamber door-slide was

closed. I knew the mechanism of these exit-portes. There were four of them in the hull-bottom of the *Seven Stars*—two on each side. There was an inner door-slide; a sealed pressure-room some ten feet square and six feet high; and an outer door-slide. Ordinarily the mechanism was automatic. The outer slide must be closed if the inner one was open. To make an exit, one went into the pressure-room; closed the catwalk door, and with manual control slowly opened the outer slide, so that the air in the sealed room would hiss out into space. After which, with a thirty-second interval, the outer slide would close and the inner one slowly open, admitting the ship's air again into the pressure-room.

"Someone worked the manual controls wrong!" Kellogg was muttering. He gestured to where there was a duplicate set of controls out here in the corridor. "That outer slide opened too quickly!"

We could hear the last of the air rushing out with a wild gush. A stab of horror went into my heart. Brenda Carson in there, trying to escape from the ship—not knowing how to work the controls—opening that outer slide too quickly.

The air in the pressure-room was gone in a few seconds. Then we heard the click of the outer slide closing. The inner door began very slowly opening. With a muttered curse of impatience Kellogg twitched at the control levers here. The inner door slid wide.

We clutched at the catwalk rail to hold ourselves against the gust of wind as the little pressure-room filled. And then we rushed into it. Pressure suits, powered as I knew by tiny gravity-repulsers and a rocket-stream mechanism, stood here in racks. One of them lay here on the floor, entangled with a rack-post so that it had not blown out. Brenda evidently had tried to get into it and failed.

"Look! Good Lord—poor little thing—" Kellogg murmured. He had slid aside a tiny bull's-eye shade. Through it a segment of space outside the hull was visible.

We had only a glimpse of a ghastly body, mangled by the explosion of the pressure within itself, out in the pressureless vacuum of space. It floated past us, some forty feet out. Held poised by the gravity, the nearness and bulk of the *Seven Stars*. Horrible little satellite, already finding an orbit of its own, slowly circling around us.

I STAGGERED back from the bull's-eye. As I rushed back along the catwalk my horrified mind was clamoring with the vague thought: had Brenda operated that pressure-mechanism wrongly? Or had someone on the catwalk, at the controls there, done it?

That thought, too, was stricken away. I reached the forward deck triangle. The bow-peak lookout was calling up to Captain Wilkes:

"Passenger overboard! Brenda Carson! It's Miss Brenda Carson!"

Dead girl in the space-light. I could not look at the horrible thing as it rounded our bow and came slowly floating past again.

"You, Fanning—what's happened? Brenda Carson, he says."

Arthur Jerome stood calling to me from his stateroom door at the bow superstructure corner. He was in his nightrobe with a negligee hastily wrapped around him.

"Yes—" I gasped. "Brenda Carson. She—"

"And I heard something about radio-helio room wrecked." The big, florid television lecturer seemed in a panic. Experienced space-traveler, but he had never run into anything like this before. I couldn't blame him for his terror. But I had no time for him now. The ship was in confusion. I could hear the Martians, below deck in the bow, shouting with frightened questions. Two or three members of the crew were running up to Captain Wilkes who was outside his turret calling down orders.

I ran down the side deck. One of the excited crew stopped me. "You seen young Philip Carson? Captain wants him."

I shook my head and ran on. Somebody else was calling Carson's name. I mounted the companionway to the superstructure roof. Had Philip Carson vanished? They couldn't find him? Well, what I knew about Philip Carson now I'd certainly tell Captain Wilkes! Suddenly I realized fully that because of Brenda I had wanted to keep silent—but there was no need of that now.

From the superstructure roof, as I ran

forward along it, I could see down to the side deck. A cloaked figure there. Philip Carson. I had just a glimpse as he darted into a door under me. A ladder was nearby. My little paralyzer-gun was in my hand as I climbed down the ladder, reached the dark side-deck. The commotion was all up forward; there was no one here at the moment. The corridor door into which Carson had run was beside me. I ran into it, ten feet or so and into a cross corridor. Came to his doorway. It was locked. I ran around to the deck again. His window was near here.

The glassite pane of the window was closed and locked. The inner fabric-shade was drawn down. What was he doing in there? Searching for his map? For other things which might be incriminating?

I had a few instruments hidden in my clothes, tiny devices which we of the Interplanetary Patrol sometimes have occasion to use—a small electric listener and a tiny X-ray fluoroscope screen. The listener yielded the sound of a man's panting breath, his furtive, fumbling movements within the dark little cubby. Then I tried the X-ray, through the fabric-shrouded glassite pane of the window. It shot its invisible, soundless rays through the window into the cubby. The little hooded three-inch screen in my palm glowed with the greenish fluoroscopic X-ray image.

A kneeling skeleton was revealed—the skeleton of a man kneeling in there with his back to me. I stared, and suddenly gasped, with my breath stopped. The back of the skeleton's skull was visible—the image-shadow there was of a different density from the bones of his skull! A dark triangular patch—not bone, but metal! The man with the metal skull! Philip Carson, of notorious Chameleon fame! The Phantom raider! I had him here identified at last! Had him trapped here!

WITH a blow of my gun-butt I smashed through the glassite pane; tore the fabric-shade aside. This room was dark. I had an instant's glimpse of the dark blob of his crouching figure. There was the whiz of something he threw at me; the tinkling of glass as some fragile little thing struck against my forehead. I recall that my paralyzer ray darted into the dark room. Perhaps it caught him, held him for a second. But my head was reeling; my senses swiftly fading, with a cold sweat breaking out all over me.

And then I was aware that I had fallen to the deck with my gun clattering away. With my last dim thought came the realization that I was fainting. That tiny glass globe which had broken against my forehead—I knew what it was! A little bomb of acetycholine, a weird drug to lower the blood-pressure and cause me to faint. I fought, but it was useless. My senses faded.

Then after an interval I seemed vaguely to be conscious that someone was bending over me. A dark cloak. . . . Again I knew only blankness; and then slowly my senses were coming back. Weak, dizzy, with my head roaring, my body bathed in cold sweat, I found myself still lying on the dark deck. Perhaps I had been out only a moment or two. I could still hear the commotion up forward. I staggered to my feet; saw the cloaked figure as it ran into the superstructure. Carson making his getaway! I had a glimpse of him again, two levels down on the dim catwalk, and saw him dart into the pressure-chamber. I was too late getting there. The metal pressure-door closed in my face.

But I had him! I could do to him what he had done to Brenda! I started for the manual controls. I could open that outer slide, let the pressure-room air out with a rush before he could get into his space suit, blast him out into space, or suffocate him in the pressure-room.

But I had over-taxed my strength. My blood-pressure was still too low from that accursed drug. My senses were fading again and I sank to the floor. Weakly I tried to call Kellogg. But he wasn't in his little nearby cubby now.

I did not quite lose consciousness this time. I heard the air slowly going out through the outside opening slide. Then heard the click as the automatic mechanism closed it. The corridor slide in another moment, automatically was slowly opening. The rush of air into the little room helped revive me. I got to my feet again; ran into the room. I could see the empty space on the rack where he had taken one of the powered pressure suits and escaped. All the bull's-eye observation porte I had a glimpse of him—a bloated

figure in his air-filled suit—a tiny comet with a radiance of rocket-stream like a tail behind it.

The blob of him in a moment had vanished. Where did he expect to go? Diagonally ahead, and far down in the glittering star-field, the round, putty-colored disk of Asteroid-9 was visible.

My strength had almost fully come back to me now. Quickly I got into another of the power-suits. They were a somewhat old-fashioned model, but adequate enough, a double-shelled fabric with electronic pressure-absorbing current in it; air-renewers, and the small power-units. I bloated the suit in another moment; closed the corridor slide. I let the air rush out through the outer slide as quickly as I dared.

And then I catapulted out, not bothering with the rocket-stream but using full gravity-repulsion against the bulk of the *Seven Stars*. Far down, ahead of me, for an instant I could just see the speck which was the fleeing Carson. Over me the bulk of the *Seven Stars* hung, a great alumite cylinder, receding, dwindled by distance until it was only a tiny speck, lost among the blazing stars.

With the huge, dull-lead disk of Asteroid-9 growing in visual size under me, I hurtled downward, using the asteroid's full attraction now as I sped after the escaping Carson.

ALONE in space; a little drifting world of yourself. It is an eerie feeling. I have no idea how long that descent to Asteroid-9 took; one loses all sense of time as well as space, hurtling alone through the starry universe. The *Seven Stars* long since was gone, vanished in the black illimitable distances of the blazing firmament above me. Head down, with full attraction in the little gravity plates of the padded shoulders of my bloated suit, like a diver I headed, hurtling for the dull-lead surface.

I had picked up velocity swiftly. The great round disk of Asteroid-9 widened, spread, crawled outward and seemed visually coming up. For a time, sunlight was a thin stream on its distant curving limb of mountains. Then I went into the cone of its shadow. At once the look of the weird leaden mountains changed; starlight and earthlight mellow with a faint sheen that struck down through the clouds and tinged the giant ragged peaks with a tinting glow.

The clouds, still far down, were broken in thin stratas here over this hemisphere. The disk had widened now so that presently it filled all the lower half of the firmament; and a visual convexity had come to it. I tried to calculate my velocity by the apparent enlarging of the desolate scene as it rushed up at me.

Where was Carson? Long since, I had lost sight of the tiny speck which had been he. Was I overtaking him? I could not tell. With the leaden glow of the asteroid's surface as a background, I knew I could be quite close to him and still not see him. Undoubtedly he was not using his rocket-stream now; had only used it in starting, for quick repulsion against the ship's hull. I was sure he could not be very far below me unless, during the time which had passed, he had headed in some other direction, departing from a straight, swift descent. Could he drop faster than I was dropping? I doubted it. Unless he was very skilled—or very desperate, holding the asteroid's attraction to a dangerous point. I held my own until I dared hold it no longer. I was in the upper atmosphere now. In every direction, save above me, the planet's dark surface spread out to its jagged, circular horizon.

Then at last I dared not hold the attraction longer. With all the tiny plates in my suit electronized to full repulsion, I began slackening my fall. Still I had not glimpsed Carson. Disappointment was within me. What a long chance was this! A five-hundred-mile hemisphere of utter desolation. No food; no water. And I had no weapons or instruments, save the single little paralyzer-gun which I had snatched from the deck when I recovered my senses. I was beginning to be sorry now that I had so hastily left the *Seven Stars*. No chance of getting back; the die was cast, here on little Asteroid-9 pitted against this resourceful, youthful astonishing Interplanetary murderer.

What mas Carson's plan? Escape from the ship had been a desperate necessity for him, of course. And my memory went back to the fragments I had heard between him and Brenda. I could under

stand them better now! They had planned from the beginning to escape to Asteroid-9! And poor little Brenda, entangled in this criminality with her brother, had left the ship first, and met her death. Memory of the map they had had came suddenly to me. I had it in my pocket now; I tried to conjure what it had looked like. Outlines of mountains; the word ANDROS. Was that the name of one of the asteroid's mountain peaks? Probably it was. I cursed myself for my ignorance. The Phantom raider probably was based upon this desolate asteroid. A hide-out here, with food and water and possibly with some of the raiders' men living here. And Carson was dropping now to join them.

What chance had I against a layout like that?

But I had no choice now but hurtle downward, trying to check my descent as best I could. For a time, as I came out from under the clouds, with the dark, fantastic surface of naked, ragged little peaks no more than twenty or thirty thousand feet down, it seemed that I had been too brash; I was dropping too fast; never would I be able to check it. I would crash. . . .

BUT that, too, was an error, born of my momentarily despairing thoughts. I was presently poised, some ten thousand feet up. The highest of the little peaks was no more than half that. They stood in a tumbled mass—jagged needle-spires—rocks and buttes and great round-top boulders, with ravines and gullies between them. Scene of utter, naked desolation, convulsed landscape, frozen into immobility.

And suddenly my heart was pounding with abrupt exultation. Far down, where the starlight and Earthlight bathed a little peak, I saw the speck which was the descending Carson! Just for a second the tiny outline of his bloated suit was clear against the background of a shining rock. Then he dropped into an inky shadow and was gone again.

I tried to mark the spot. A little triplet of spires, standing like sentinels above a small dark valley. Was that Andros, a landmark here? Probably it was.

I was down in perhaps another half hour, with the triplet of spires standing up against what was now a sullen sky of broken leaden clouds through which the starlight and Earthlight fitfully shone. I had landed, by all that I could judge, about half an Earth-mile from where Carson had dropped. Had he seen me coming down above him? Perhaps. Perhaps not.

With my helmet off, and with my lungs panting as they tried to adjust themselves to the weird air, I crouched for a moment in the shadow of a rock, peering, listening. There was nothing. It seemed a dead world, myself its only inhabitant—a silence so utter that my own breath, my pounding heart were roaring in my ears.

I started in a moment, heading along a ridged, fantastic little terrain at the bottom of a shadowed valley. The deflated suit hung in baggy folds upon me; the bulky helmet was folded, hanging down from the back of my neck. Half a mile to where Carson had dropped. Gun in hand I advanced as cautiously as I could, until presently I was following a ragged ditch with the triple spires of Andros looming above me.

Was this where Carson had landed? So far as I could judge, it seemed so. I was tense, alert with the vague, horrible feeling that I was walking into ambush.

Then ahead of me, in a distant shadow, it seemed that there was a faint stir of movement. Soundlessly I melted down to the lead-gray rocks. I could not see the shadow now, but every instant I expected the luminous darkness to be stabbed with a bursting bolt. There was nothing.

Suddenly the stillness was broken by a faint scraping sound. It seemed fairly close, and into the darkness from whence it had come I aimed my ray; pressed its lever.

There was a faint, gasping scream; then a choked silence. I jumped to my feet, holding the paralyzer-gun leveled as it throbbed and quivered in my grip. Got him! He couldn't move. He was rooted there in the darkness, with rigid, stiffened muscles as the ray held him.

I saw him in an instant, the dark blob of him almost merged with the shadows, with his baggy space-suit like my own deflated in folds upon him, and his helmet folded back.

Triumphant, I dashed forward; and then stopped transfixed, amazed. The

paralyzed figure, stricken upright here on the rocks wasn't young Carson! Above the folded helmet there was a head of bobbed blonde hair! Brenda! Brenda, not dead! Not that ghastly thing that was a gruesome little satellite of the *Seven Stars!*

I saw her rigid face, with goggling mouth and staring eyes. Brenda mute, stricken by my ray. I snapped it off frantically; called to her as I dashed up. And as the ray released her, I saw her waver; then, with her knees buckling, she sank into a little heap on the ground.

If only I had some water to dash into her face! Frantically I knelt, holding her head, brushing her curls from her damp forehead. The ray, I knew, upon her for so short a time, should not quite do this to her. It was her emotion, her terror which had caused her to faint.

My mind went back to that hooded figure, cloaked, which I had chased in the ship's corridor. I had had a vague indecision, then had decided it was Brenda—and the ship's lookout at the bowpeak had confirmed my fears. But that had been Philip, and it was Brenda whom I had chased that second time, following her out the porte, hurtling into space after her.

"Brenda—"

She opened her eyes presently, bewildered, but she was unharmed.

"Oh—you—I was so frightened."

I HELD her as she recovered, and presently she was filling in all the grim details of her tragic little story. Whatever her brother Philip's propensities for gambling and bad companions, he had been no criminal. They had lost their father; had been truthful when they said they did not know what Professor Carson had been building in his lonely little laboratory. But they knew enough so that when the Phantom bandit began his mysterious raids, they suspected it was their father's ship; the laboratory explosion merely a blind. He had often mentioned, when they were children, that the dream of his life was to discover and perfect electronic invisibility.

"Albert Einstein of two hundred years ago," she was telling me now. "Father studied his writings and his theories very closely. He said that the secret of practical mechanical invisibility was clearly forecast by Einstein's discoveries."

"And you think now," I murmured, "your father is this mysterious Phantom raider?"

Her little face clouded. Her blue eyes, misty with Earthlight which was striking down upon us now through the clouds, gazed at me with a pathetic appeal.

"We did not know. We—we were afraid so. And then Philip got a message one night—"

Weird occurrence. Young Carson had been on the porch of their Long Island home. From the sky overhead, where nothing was to be seen, had come a little stab of waving white light. A helio signal. From their father? Certainly it seemed so. It told them to come secretly to Asteroid-9. He would be there, at the base of Andros. And so they had come to try and help their father.

"Help him?" I murmured.

"Yes. Oh, Mr. Fanning—"

"Jim is shorter," I interjected.

"—Jim, you see, we couldn't believe father is a criminal. Captured maybe and forced to operate his ship by these bandits, and appealing to us for help."

Desperate adventure indeed. But they had tackled it; had taken passage on the little *Seven Stars* which they understood would pass very close to Asteroid-9, this voyage. And they had known completely nothing of the *Seven Stars'* cargo or of any plot which the raider might have against her! Brenda gasped now when I told her of those angles.

And there were still other angles that puzzled me. "Brenda, have you ever heard of an Earth-criminal called the Chameleon?"

She had not; and when I described his exploits of a few years ago, she was convinced that by no possible chance could her aged father have been secretly doing things like that. Nor Philip either, for that matter. She declared it vehemently, and I believed her. But the man with the metal skull had been on the *Seven Stars* as stowaway, or spy among the passengers, ship's officers or crew. I had seen him there in young Carson's stateroom.

Brenda, when I was chasing her, had eluded me. "I saw you fighting with somebody at Philip's window," she told

me now. "I was going to escape from the ship then."

"Even though Philip was dead, you were going on with your plans alone?"

"Yes, why not?" She smiled her twisted little smile. "Then I saw you fall to the deck. I ran, bent over you. I—I thought you were dead. So I—I ran down to the porte and took off. Philip and I had planned it so carefully. Oh, poor Philip!"

"He didn't miscalculate those air-mechanisms," I muttered. "That damned villain must have been there in the corridor for an instant while I was talking to Kellogg, and shoved the controls—killed Philip."

And I had tried to do the same thing to Brenda! I could only thank the Lord now that I had failed!

THE two of us, alone here on Asteroid-9. No food nor water. Perhaps the only inhabitants of this desolate little world.

Abruptly she was gripping me. "Look—Jim—look there!"

I followed her gesture. Up in the leaden sky beyond the looming triple spires of Andros, a tiny speck had appeared. A ship coming down. Breathlessly we watched. In a few minutes it was a little oblong blob.

"It's coming this way, Brenda."

"Yes."

It seemed circling a little. By the look it would land on a small level plateau some quarter of a mile from us. We stared, mute, transfixed, watching.

And then suddenly I sucked in my breath with a new shock of startled amazement. There was something familiar about that cylindrical alumite hull with the curving pressure-dome above it, and those quadruplicate tail-fins.

It wasn't the bandit flyer! "That's the *Seven Stars!*" I gasped.

The *Seven Stars* unquestionably. We saw her clearly in a moment, as she circled some five miles away from us and headed slowly for the small plateau. Captain Wilkes undoubtedly had changed his mind about trying to make a run for it. With chaos on his ship—his radio-helio wrecked so that he could not summon another convoy—he had headed down here to hide his vessel. And he did not know, of course, that the Phantom raider's base was here! He had brought his little treasure ship into the very camp of the enemy!

"We must warn him, Brenda."

The blob of the little liner dropped from our sight behind a line of broken rock-spires as she settled to the plateau. But we could tell within a few hundred yards of where she had landed. It took us only a few minutes to run there, with the slighter gravity of Asteroid-9 aiding us in our leaps across the intervening little chasms. And then we saw the *Seven Stars,* where she rested placidly on the level surface. One of her lower portes was open, but there were no figures out on the dim rocks.

There was silence inside as we entered the dark little pressure-chamber. As always customary in port, both its outer and inner door-slides were open, admitting the fresh outer air.

There was no one to greet us on the lower level catwalk. Its single overhead light was burning. We passed Kellogg's little cubby. No one was in it. Then we mounted the companion ladder; came to the superstructure corridor.

Queer, this silence. I held Brenda, with my heart chilling, sinking. It seemed suddenly that we were prowling like ghouls. The ship was so cold, so silent. With the ventilating fans stilled, the interior air here was turning fetid. I had an impulse to call out. Captain Wilkes, Controlman Kellogg, Purser Green, the crew, the passengers—where were they all? But abruptly I was furtive, with a slow, horrified terror dawning in me so that in the dim corridor I stood suddenly and turned to Brenda.

"We'd better get back out of here," I murmured. "Something queer—"

"Jim—look!"

We stood frozen, transfixed. At the deck doorway a blob was lying. Captain Wilkes. Dead—suffocated. I swept Brenda away that she might not get a second glimpse of his puffed, mangled flesh where it had burst outward from its own pressure. There had been a vacuum here! Out in space the little *Seven Stars* quite evidently had lost her interior air!

Ship of the dead! I took only one look at the dimly starlit deck triangle; the bodies lying strewn there. Little group

of humans who had gathered there in a last frenzied panic, clinging to each other, falling one upon the other—suffocating, dying.

Nothing but the dead here.

But this tragedy had happened out in space! And we had seen the *Seven Stars* calmly coming down, gracefully, skilfully landing!

I swung back to Brenda. I gasped, "Good Lord, we've got to get out!"

Too late a realization! I was aware suddenly of a dark glistening shape behind us in the corridor—a man in a sleek tight-fitting black robe. His white face, evil with a leer, grinned at us. Brenda screamed. I tried to defend us from another dark blob that leaped from a doorway beside me. And then something struck my head. I was aware only that Brenda was screaming as I felt myself falling, my senses hurtling off into the soundless abyss of unconsciousness.

I CAME at last into a dim half-consciousness in which I realized that I was being carried. I could feel the rhythmic step; and then I knew that I was slung over a man's shoulder and that he was walking with me on the rocks. Other dark forms were beside us. With blurred vague vision I could see the little *Seven Stars* which we had left.

And near at hand another space-ship had landed now, here upon little Asteroid-9. I was being carried to it. I could glimpse it only vaguely as I hung inert on my captor's shoulder. It was a small ship smaller than the *Seven Stars*, and of a type I had never seen before—barrel-finned and with a spreading fan-tail, somewhat in the British Earth-design. It rested on the rocks like a long, thin bird, with body puffed out underneath. Over it was the conventional glassite pressure dome, low-slung so that its top was no more than ten feet above the single deck. A dead-black bird. The starlight and mellow Earthlight were on it, but the black metal surface did not shimmer.

My senses wafted away again into another blank interval. . . . And then dimly my hearing came. . . .

"We're glad to have you, little Brenda. You are a treasure indeed. A woman among us—to cook and sew with woman's duties. Your father will appreciate that. You do, eh Carson?"

Familiar, suave, ironic voice with a rich booming timber to it of assumed graciousness. I knew I had heard that voice before, but with my swimming senses now I could not quite place it. I felt my eyes opening to a blur of swaying outlines.

"You let her alone." The thin frightened voice of an old man. Brenda's father.

The dim scene clarified as my strength came. I was lying on the floor of a little circular control room, with a black shape beside me. And there were three other figures: Brenda, still garbed in her baggy deflated space-suit, with her white tense face staring in my direction; her gray-haired, thin father, in black trousers and black shirt, seated in a little metal chair beside her. And the other figure at the controls—a big, heavy-set man in tight-fitting black garment. Tubelight shone on his florid face. Arthur Jerome, Interplanetary traveler, Earth television lecturer on things astronomical! The man with the metal skull, unquestionably! Notorious chameleon of former years, and now the Phantom Raider!

"This Fanning comes to his senses," a voice beside me growled.

"Ah, so?" It brought Jerome with a leap, and then he bent over me. "So that blow on your head didn't kill you, Fanning?"

"No," I said. "You, Jerome. If only I had known—"

"Quite true," he chuckled. "Hindsight is very easy. And now we have you here. You will be useful, if you have any sense. A member of the Interplanetary Patrol, you should be skilled in many things of our adventuring in space. Romantic life, Fanning. Did you ever read of Captain Kidd, so long ago? One might say I am his modern incarnation. Romantic idea, eh Fanning?"

A little mad, this fellow. I could well imagine it. But a clever scheming, murderous villain for all that. "Much money for you," he added slyly. "I treat all my men well. There are fifteen of us here."

"I like money," I said with an assumption of sullenness. "But there are a lot of things I want to know."

I found that I was still garbed in the space-suit, but my weapon was gone.

was presently allowed to sit up in a chair beside Brenda and her father. But for all my assumption that I could be bribed, it did not deceive the wily Jerome. The two other black-garbed men here were closely watching me.

THE Phantom flyer. From here in its tiny control room, it did not seem unusually weird. Its fittings a dead-black metal. Its men garbed in sleek, dead-black, close-fitting fabric suits with black fabric helmets dangling at the back of the neck.

I could see that we were in space. Through the pressure dome the stars were glittering in a black firmament. Where were we going? Jerome had not the slightest objection to telling me. Perhaps in the back of his mind there was the idea that ultimately he could bribe me, make me one of his band of cutthroats, useful to him. He was a genial, triumphant villain now, flushed with his success, pleased to boast of it before his men and before Brenda.

Old Professor Carson had not intended that his children come to Asteroid-9 and try to rescue him. That furtive message he had found opportunity to send was intended to bring the Interplanetary Police. Jerome had discovered that the message was sent. On the *Seven Stars* he had thrust Phillip out through the porte; and had been searching Phillip's stateroom, fearing that some incriminating evidence might be there, when I assailed him.

"You were using an X-ray screen?" he jibed at me now. "My metal headplate? Much good will it ever do you now to know that I was the Chameleon. A clever fellow, that Chameleon—but I like the Phantom bandit better, don't you?"

And then he told me gloatingly how easy it had been for him to don a pressure-suit and hide in the pressure-room while he wrecked the air-valves and let the air out of the doomed *Seven Stars*. Ship of the dead, on which he was the only living human until his phantom raider had come with a boarding party. Then the *Seven* had been taken to Asteroid-9, her cargo of electronic weapons transferred to the arriving X-flyer, and here we were.

"Headed for Deimos," he chuckled. "How glad they will be to see us! A million decimars of Interplanetary currency, Fanning. You'll want some of it, surely. And then we'll go looking for another adventure. Romantic life, eh?"

I tried, during those following hours, very cautiously to convince Jerome that at heart I might be a villain like himself. Perhaps to some extent, I succeeded. At all events, there came at last a brief interval when the controls were locked and Brenda, her father and I were out on the tiny forepeak in the starlight, momentarily alone. I had found now that a little freedom of movement was given us. After all, there was nothing that we could do, trapped here.

"You know where the exit porte of this ship is?" I murmured.

"Yes, yes, of course." Professor Carson was a confused, dazed old man; his life among these cutthroats for so long now had cowed him. "But what—what do you think you could do?"

In truth I had no possible idea. But if ever a chance should come for escape—

"In the pressure chamber," I whispered, "would there be pressure suits? One for you—"

"Yes. Yes, there are."

A commotion up at the control turret interrupted us. The black-garbed man at the electo-telescope there was shouting. Jerome came running; and we followed him up into the turret. He was grim, but ironically smiling.

"Interplanetary Patrolship off there," he said. "Patrolship-3."

Sister ship of my ill-fated vessel.

"Sighted us?" I murmured.

He shrugged. "Probably. Only three thousand miles away—probably did." His mouth was set into a grim hard line. In his eyes I saw that gleam of fanatic irrationality. "Unfortunate, for them. This little vessel of mine has never been sighted before, you know." His lips twitched with a grin. "You see how we are dressed here? Why, we've even been down into Earth's atmosphere—we've landed and made away without discovery. We'll do that on Deimos. And now this Patrolship—no one on it will ever live to tell that even for a moment they sighted the Phantom raider!"

He turned to an intricate bank of levers, dials and tiny vacuum globes that were ranged on a table here at the side of the

control room. Separate from the space-flying mechanisms. The controls of the mechanical electronic invisibility.

"You'll see us go into action now, Fanning. It should be interesting."

He swung the dials. I felt my senses reel with a weird shock. Brenda gave a little gasp. There was a momentary quiver of all the ship; a momentary current-hum. And then silence.

My head cleared; the shock was passed. I gripped the arms of my chair and stared.

A GLOW like an aura of green radiance suffused the control room. A green glow of unreality throughout all the little ship. I could see it out on the forepeak triangle—the black-garbed figures like wraiths out there in a luminous green gloom. The glassite bull's-eye portes seemed now to have a green film on them. The stars outside were shut away. The transparent glassite dome was spread with the same dull-green opaquenes now. And then I saw, here in the turret walls, in the dome and in the center of each of the bull's-eyes, little holes through which a tiny segment of the starfield still was apparent—windows like dull little eyes puncturing our barrage of invisibility so that we could see outward through them.

Here in the control room the dull radience shone upon Jerome's grinning, triumphant face; it was tinted ghastly, putty-colored by the strange light. And the light glistened on his eyeballs, glowing like phosphorescence—like the eyes of an animal in a hunter's torchlight at night.

Everyone here, the same. And I saw old Professor Carson's face — the face of a dead man. His expression was stamped with his mixed emotions. This, his science of which he had been so proud, perverted now into murderous, ghastly warfare by the villainous Jerome.

Then Jerome moved to his space-flight controls; through the tiny windows in the barrage I could see that our ship was swinging, heading for the oncoming patrolship. Only three thousand miles apart. They would be upon each other in a few minutes.

Jerome's footsteps as he moved across the room faintly sounded on the metal floor-grid. Toneless footsteps in this eerie radiance. Unreal—they might have been tinkling bells, or harsh thuds. All timbre had gone from them so that they had lost their identity completely.

"Not long now, Fanning," Jerome said. "You'll see that ship go to its death." Ghastly dead voice. Every overtone had gone from it. It could have been a man's voice, or a woman's. The voice of a dead thing in a hollow tomb.

"Weird—" I muttered. My own voice the same. And Brenda's, as she murmured something in horror. All dead, indistinguishable one from the other.

Down on the forepeak in the sodden dull-green light, I could see the crew raising the electronic gun-carriages into position now. They were quite evidently of the most modern Edretch type, squat projectors with grid faces fitted into vacuum firing portes on each side of the forepeak. Guns undoubtedly with an effective range of some five hundred Earth-miles.

X-flyer going into action. The crew, with their dead putty-colored faces, moved silently in the soundless ship. Up here in the turret with us, Jerome's hollow voice was gloating:

"That fool patrolship—they have seen us vanish. They know now who their adversary is. Want to see them, Fanning?"

There was no need of a telescope now. A magnified image of the oncoming patrolship as seen through one of the little barrage-vents on our bow, was spread here on a grid-screen in the control turret. Fascinated with horror, I watched it—the foreshortened looming bow of the patrolship clearly outlined against the black velvet of the firmament. It had seen us vanish, had turned and was heading straight for where it had last seen us! Even as I watched, the image of it was visibly enlarging. A thousand miles away now, probably. But almost in a moment it would be within range!

Then the wily Jerome abruptly swung us sharply. He was still at his gravity-control levers. The starfield rolled sidewise as we turned in a great hundred-mile arc. The maneuver was obvious. The patrolship had marked our position. Jerome quite evidently was not sure what range-guns his adversary had. He was taking no chances that a premature shot, aimed by calculation at where we might be, would strike us.

Patrolship-3 had guns very similar to these which I saw now being erected here on the X-flyer. It could have been a fairly even battle, a test of electronic battery-strength, of astronomical skill, of reckless daring—and yet, against an invisible enemy it could be no fight at all! I knew the commander of Patrolship-3 well. A stalwart, youngish fellow named Rollins. A man of infinite skill, reckless daring. I could picture him now in the turret of his ship, with his mouth set grim and his eyes flashing as he hurtled his little vessel forward. At what? Nothing but an apparently empty starfield from some unknown quarter of which a sudden stab of bolt would leap to strike him! I knew what Commander Rollins was thinking now. He would watch for that first bolt, and if it did not wreck his ship he would fire at the blankness from whence the shot had come. His only chance. An almost hopeless one. And yet he had done his best to hurl himself at us.

WE were circling now. And suddenly it seemel that Rollins' ship, with its side spread toward us, off there at some five hundred miles, was slackening its velocity. Like a lion at bay, stopping, waiting with an invisible soundless wasp encircling it.

One of the gunners down in our forepeak signaled up to Jerome.

"Not yet," Jerome called. "When we strike, it must smash. There must not even be a chance of an answering shot."

Maneuvering for the kill. Fascinated, silently I watched as again we were heading for Rollins' ship. And within me a vague, desperate thought was growing: There are things through which one has no right to live. If only I could contrive it.

Jerome was absorbed at his controls, his range-finders and his calculations. My hand touched Brenda's arm where she sat beside me. I whispered:

"Brenda, we may not live through this."

"I know."

"I mean, if we were to die, to help that other ship."

She stared at me, and then at her father. Jerome had called the old man, ordered him to the mechanisms of the vessel's invisibility, where he sat checking the dial-readings of his intricate apparatus.

Briefly, its operation involved three scientific factors: De-electronization, thus to create around any metallic object a barrage of magnetic field of a new type to any previously developed; color-absorption, by which there can be no reflected light from the de-electronized object; and the Albert Einstein principle of the natural bending of light-rays when passing through a magnetic field. In effect then, the total color-absorption into the de-electronized object would make it, when viewed externally, a *nothingness* to see. A blankness, like an outlined dark hole. But that in itself is not invisibility—merely a silhouette. The background would be blotted out, so that the invisible object would be perceived by the background it obscured. The magnetic field, however, by natural law which Einstein discovered, bends the light-rays from the background, *around* the intervening object. The background thus seems complete. The intervening object has vanished!

Simple in theory; but it was an intricate little apparatus here which now old Professor Carson was attending. I stared at him as he bent so earnestly over it. His beloved brain-child.

For that moment Brenda tenderly regarded him. And then she turned to me. Her eyes were misted.

"Whatever you think best," she murmured.

Tensely I was waiting my chance. That tiny row of fragile vacuum tubes.

My heart pounded suddenly as Jerome locked his space-controls and darted down to the forepeak to consult one of his men at a gun-range finder. I muttered:

"Brenda take your father and get out of here quickly!" A burly, black-garbed guard was coming in from the turret balcony to watch us in Jerome's absence. I added in a swift undertone: "Go down with Jerome. Find some pretense to help him."

They would escape Jerome's wrath and there was just a chance that they might live through this.

They had only reached the little balcony outside the turret when the guard came in. I was on my feet.

"Sit down," he commanded.

He was between me and the little table

where Carson's tiny row of vacuum-tubes glowed dull-green. And in that second I leaped, head down like a battering ram. With my skull striking his middle he went backward, spun as he tried to get his balance. And he landed, sprawled forward on Carson's little table.

There was a tinkling crash as the de-electronizers short-circuited. A hiss of neutronic flame which in that second with its half-million ultra-pressure oscillating volts, electrocuted the luckless villain who was sprawled there.

I was down on the floor, crawling in the chaos. Amazing, electronic turmoil. The shock of it swiftly spread around the little vessel; made the senses of everyone on board momentarily reel. I was aware of thin slivers of neutronic fire darting upward from the cooking flesh of the sprawling man's body. Neutronic fire that all in that second of deranged current darted throughout the ship. A split second of flash; but in that second the darting tiny slivers of light-fire everywhere were drinking up the weird green glow. The muffled ghastly, toneless sounds of the ship's interior were brought to life. Down on the forepeak Jerome gasped a startled curse. One of his men fell with reeling senses.

And light was here. Normal celestial light, streaming down through our transparent dome where the blazing firmament of stars was now clearly to be seen. We had lost our invisibility! Gone. Irrevocably gone. At least this combat would be upon an equality! Rollins at last had his equal chance with the Phantom raider!

Patrolship-3 was clearly apparent now through our forward dome. I saw Rollins swing his bow toward us. There was a tiny violet flash from his forepeak. The first shot!

It came like a great violet lightning bolt hurtling at us!

THERE was a puff of electronic light up at our dome-peak. A shower of red-yellow sparks. I held my breath as Rollins' little circle of violet beam struck us full, and clung. A second. Ten seconds, while the shower of sparks sprayed like a little fountain of light-points. Would the outer shell of our dome crack?

It seemed to hold. Ten seconds, and then Rollins' ray snapped off and vanished. A test shot. I knew it was not a weakness of his electronic power. A great, long-range space-gun with a single snap-bolt ordinarily can do little damage. It is the duration of seconds over which the bolt can cling, eating its way with generated interference-heat, fusing and breaking its opposing armored substance.

And this was Rollins' first tentative test. Verifying his range, and our ship's resistance. A conservation of his electronic power. In space-gun battle, the available reserve of battery strength is vital. A long-range gun, with ten seconds of sustained voltage, drains any battery-series faster than the whirling electro-dynamos can build them up. Then there must be an interval of replenishment.

My heart pounded with exultation as the thoughts swept me. Rollins had been grimly desperate, undoubtedly, against an invisible enemy. But his adversary was visible now. An equality of battle; and so Rollins would use his wits, his skill of judgment. This damned murderous Jerome would have all he could do to match tactics with the skilful commander of Patrolship-31

In those chaotic seconds I was still on the floor near the door of the control room. Inside it the dead, roasted body of my guard lay sprawled face down upon the wreckage of the invisibility-controls. The current there was shut off now. The slivers of light-fire were gone. Down on our forepeak Jerome and his gunners were recovering. Jerome was gazing up, wildly cursing.

I staggered to the little turret-balcony, where Brenda and her father, white-faced, were clinging to its rail.

"That damned fool!" I shouted. "In there—in the turret. He stumbled and fell on the control table."

Would it serve as an excuse? Would the raging Jerome stab at me now with a heat-bolt? Or would he believe me? I felt sure that no one actually had seen what had happened.

"You damned—why—why—" Jerome for that instant glared up at me, his hand instinctively reaching for his belt. But in all the chaos, turning his wrath upon me must have struck him as futile. And it was stricken from his mind by the confu-

sion around him. Acrid choking fumes were swirling through our little vessel, fumes from the deranged current of the de-electronizers. One of Jerome's men dashed up to him.

"A fire on our stern-deck. I put it out."

"Go back to your post." Jerome shoved him away impatiently; turned, came up and went into his turret, and seated himself at his gravity controls.

Through the dome-peak I could see Rollins' ship, going in the opposite direction from us, hurtling past us. Two hundred miles off. In a moment it had passed and was out of range. Then it was turning, mounting in a great arc and hurtling back at us!

JEROME stabbed first. A hit! The violet sword dimly glowing, luminous as it ignited the motes of intervening star-dust, leaped across the narrowing angle and struck with a puff of glare. Jerome held it, clinging. Five seconds. Ten. Fifteen. I could hear the throb and whir of our dynamos as they struggled with the load. The big dial levers on Jerome's desk quivered, slowly turned backward toward zero as our batteries drained.

For those seconds Rollins took it with no answering shot. Would his forepeak dome hold? I could see the tiny puff of fountain-light there where the violet beam was boring. And then Rollins answered! From his stern-peak this time diagonally away from us, his beam shot out. Not directly at us, but at our bolt-stream. Two great violet rapiers in space, sliding one upon the other. Midway between the vessels they clashed. The interference cut our beam from Rollins' vessel. Out there in space for breathless seconds both the beams held firm. Amazing sight of pyrotechnic beauty, that area where the beams clashed.

Another ten seconds, each of them an eternity. The giant circle of the interference area slowly was backing toward Rollins' ship! Our beam, at reckless full-power now, was pushing it back. Only twenty or thirty miles now from its target.

A buzzer sounded at Jerome's elbow. He reached for his audiphone. The panic-stricken voice of our controlman in the ship's hull sounded:

"Chief! Dynamo bearing running hot! An' we're almost at zero in the main battery."

Jerome disconnected with a grim curse. Another few seconds. The narrowing angle of the hurtling ships had brought them within a hundred miles of each other. And then suddenly, again it was Rollins who was the more cautious. From the tail of his vessel a stream of burning gas suddenly was issuing. A widening fluorescent comet-tail streaming out behind him. And then he was turning, heading away from us! In retreat! The interference area of the two clashing sword-beams broke. The great prismatic spark shower died. Our bolt, plunging through, for a second may have struck the turning, retreating Rollins. No one here could say. Rollins' bolt had snapped off. The image of his ship merged with the gas cloud. Vanished behind its masking cloak.

Jerome snapped off our beam. His face was triumphant; his enemy fleeing, trying to mask his retreat with a cloud of burning gas.

"By Heaven, I've got him!" Jerome was muttering. "Damn' fool, trying to fight the Phantom."

The starfield swung as we turned, headed at the gas-cloud where it hung in a vast luminous fog of prismatic color as though a comet had burst there. Triumphant pursuit of our enemy. But I held my breath.

I found Brenda beside me. Her hand, cold dank, gripped mine. Our eyes met. There was nothing to say. Surely we both knew what little chance we had of coming out of this alive.

The luminous gas-cloud swarmed to the sides as our ship plunged headlong into it. And then we were through it.

THERE was no warning as Rollins' bolt struck us! He had not tried to escape but was poised here in ambush, bow toward us, no more than fifty miles away, off to one side by skilled calculation so that there was only his narrow bow as our target and we were almost broadside to him!

The bolt struck us midway of the hull in a shower of sparks that mounted up and clouded our instruments. Clinging, full-power beam. Rollins at last striking for the kill! Wildly our guns tried to

intercept it. One of our forepeak guns went out of commission with a back-firing burst which shattered it and killed the man at its controls. The fumes of the explosion came wafting up, acrid, choking.

There was a sudden panic of confusion here, but Jerome leaped to his feet with his roaring voice steadying his men. Then two of our guns, stern and bow, stabbed beams that struck the patrolship's bow and clung. But still that blast at our hull persisted. Eating, fusing the metallic hull-plate.

Weird, transfixed drama as the seconds passed. I knew that Rollins now would never yield. This bolt would cling to the limit of his batteries.

The audiphone beside Jerome was screaming with the hull-controlman's panic-stricken voice: "Chief—hull plate is bending—bulging—"

Then I saw, through the shower of sparks outside, that Rollins' ship was edging even closer. One of our two bolts had wavered and broken, with exhausted battery. The other, weakened by all Jerome's reckless firing, was futilely clinging to its target with a shower of sparks paling now by diminished voltage.

And then from the patrolship, little blobs were popping out. Catapulted bombs, hurtling at us with this close, twenty-mile range. Some exploded in mid-space fired by the free electrons which hung heavy here around us. And then one struck us, exploded with a dull concussion against our stern. And then another, and another.

"Jim—Jim dear—goodbye."

Brenda's murmured words brought me suddenly to myself. Only sixty seconds had passed since we burst out of the gas-cloud and Rollins had jumped to finish us. Sixty seconds, but it had brought chaos here on the Phantom ship. My chance! Old Professor Carson beside us was in a daze; white-faced, numbly staring.

"The exit-porte," I muttered. "Brenda, make your father hurry."

Fumes of green-yellow chlorine mingled with oil-smoke, were surging around us as we staggered up the little catwalk from the balcony to the dome-top. Jerome may have seen us. His voice was shouting desperate orders, and curses, but whether at us or not I never knew. A gunner down on the deck fired at us with a hand-ray, but it missed.

"Brenda, hurry! Get your father into a space-suit."

She and I still were garbed in the space-suits from the *Seven Stars*. In the tiny exit-porte, one of Jerome's crew, himself trying to escape, lunged at me, but I felled him with a blow of my fist into his face. The closing slide-door of the tiny pressure chamber shut away the chaos. Then our suits were inflated; our helmets fixed and we catapaulted into the glare of outside space. I flung on my rocket-stream; clung to Brenda and her father. My metal-tipped fingers on the metallic plate of her shoulder made audiphone contact.

"Hold tight, Brenda."

"Yes, Jim."

"I'll tow us."

Horrible, chaotic seconds as the showering electronic sparks from the doomed phantom flyer enveloped us. Indescribable glaring confusion of deranged electricity and fusing, bubbling, flying metal-fragments. Prismatic light that blinded.

We came through it in a moment, out into the starlight with the glaring, staggering vessel receding behind and above us as my rocket-stream and gravity-plates drew us out of the line of fire. The patrolship was hardly ten miles away now. I signalled with a helmet-flare. Interplanetary Code signal. Rollins saw it; recognized it; answered it!

We hurtled forward. Behind us, well overhead now, Jerome's harried, wavering ship suddenly cracked. With a great burst of interior pressure the dome, to which Rollins' main beam had shifted, abruptly exploded outward. Ghastly, silent explosion. It spewed wreckage. Little hurtling dots of shattered glassite and metal and mangled humans—blobs that spewed out, were caught by the vessel's attraction, finding their orbits so that they circled, gruesome satellites of their convulsed world.

Then the last of Rollins' blasting beams snapped off. Back there the broken ship hung leprous, with fused, still bubbling dome. Like a bent finger of colored light for a moment more it glowed. And then it went dark.

Dead X-flyer among the stars. The end of the dreaded Phantom of the Starways.



THE STELLAR LEGION

By LEIGH BRACKETT

No one had ever escaped from Venus' dread Stellar Legion. And, as Thekla the low-Martian learned, no one had ever betrayed it—and lived.

SILENCE was on the barracks like a lid clamped over tight-coiled springs. Men in rumpled uniforms—outlanders of the Stellar Legion, space-rats, the scrapings of the Solar System—sweated in the sullen heat of the Venusian swamp-lands before the rains. Sweated and listened.

The metal door clanged open to admit Lehn, the young Venusian Commandant, and every man jerked tautly to his feet. Ian MacIan, the white-haired, space-burned Earthman, alone and hungrily poised for action; Thekla, the swart Martian low-canaler, grinning like a weasel beside Bhak, the hulking strangler from Titan. Every quick nervous glance was riveted on Lehn.

The young officer stood silent in the open door, tugging at his fair mustache; to MacIan, watching, he was a trim, clean incongruity in this brutal wilderness of savagery and iron men. Behind him, the eternal mists writhed in a thin curtain over the swamp, stretching for miles beyond the soggy earthworks; through it came the sound every ear had listened to for days, a low, monotonous piping that seemed to ring from the ends of the earth. The Nahali, the six-foot, scarlet-eyed swamp-dwellers, whose touch was weapon enough, praying to their gods for rain. When it came, the hot, torrential downpour of southern Venus, the Nahali would burst in a scaly tide over the fort.

Only a moat of charged water and four electro-cannons stood between the Legion and the horde. If those things failed, it meant two hundred lives burned out, the circle of protective forts broken, the fertile uplands plundered and laid waste. MacIan looked at Lehn's clean, university-bred young face, and wondered cynically if he was strong enough to do his job.

Lehn spoke, so abruptly that the men started. "I'm calling for volunteers. A reconnaissance in Nahali territory; you know well enough what that means. Three men. Well?"

Ian MacIan stepped forward, followed instantly by the Martian Thekla. Bhak the Titan hesitated, his queerly bright, blank eyes darting from Thekla to Lehn, and back to MacIan. Then he stepped up, his hairy face twisted in a sly grin.

Lehn eyed them, his mouth hard with distaste under his fair mustache. Then he nodded, and said; "Report in an hour, light equipment." Turning to go, he added almost as an afterthought, "Report to my quarters, MacIan. Immediately."

MacIan's bony Celtic face tightened and his blue eyes narrowed with wary distrust. But he followed Lehn, his gaunt, powerful body as ramrod-straight as the Venusian's own, and no eye that watched him go held any friendship.

Thekla laughed silently, like a cat with his pointed white teeth. "Two of a kind," he whispered. "I hope they choke each other!" Bhak grunted, flexing his mighty six-fingered hands.

In his quarters, Lehn, his pink face flushed, strode up and down while MacIan waited dourly. It was plain enough what was coming; MacIan felt the old bitter defensive anger rising in him.

"Look," he told himself inwardly. "Books. Good cigars. A girl's picture on the table. You had all that once, you damn fool. Why couldn't you . . ."

Lehn stopped abruptly in front of him, grey eyes steady. "I'm new here, MacIan," he said. "But we've been Legion men for five generations, and I know the law; no man is to be questioned about his past. I'm going to break the law. Why are you here, MacIan?"

MacIan's white head was gaunt and stubborn as Tantallon Rock, and he kept silent.

"I'm trying to help," Lehn went on. "You've been an officer; every man in the barracks knows that. If you're here for any reason but failure in duty, you can be an officer again. I'll relieve you of special duty; you can start working for the examinations. No need to waste you in the ranks. Well?"

MacIan's eyes were hidden, but his voice was harsh. "What's behind this, Lehn? What the hell is it to you?"

The Venusian's level gaze wavered; for a moment the boy looked through the man, and MacIan felt a quick stab in his heart. Then all that was gone, and Lehn said curtly.

"If you find the barracks congenial, stay there, by all means. Dismissed!"

MacIan glared at him half-blindly for a moment, his fine long hands clenching and unclenching at his sides. Then he 'bout faced with vicious smartness and went out.

NEARLY an hour later he stood with the Martian Thekla on the earth works, waiting. The monotonous piping prayed on in the swamp; MacIan, looking up at the heavy sky, prayed just as hard that it would not rain. Not just yet.

cause if it rained before the patrol left, the patrol would not leave; the Nahali would be on the march with the very first drop.

"And my chance would be gone," he whispered to himself.

Thekla's bright black eyes studied him, as they always did; an insolent, mocking scrutiny that angered the Scot.

"Well," he said dryly. "The perfect soldier, the gallant volunteer. For love of Venus, Thekla, or love of the Legion?"

"Perhaps," said Thekla softly, "for the same reason you did, Earthman. And perhaps not." His face, the swart, hard face of a low-canal outlaw, was turned abruptly toward the mist-wrapped swamp. "Love of Venus!" he snarled. "Who could love this lousy sweatbox? Not even Lehn, if he had the brains of a flea!"

"Mars is better, eh?" MacIan had a sudden inspiration. "Cool dry air, and little dark women, and the wine-shops on the Jekkara Low-canal. You'd like to be back there, wouldn't you?"

To himself, he thought in savage pleasure, "I'll pay you out, you little scum. You've tortured me with what I've lost, until I'd have killed you if it hadn't been against my plan. All right, see if you can take it!"

The slow dusk was falling; Thekla's dark face was a blur but MacIan knew he had got home. "The fountains in the palace gardens, Thekla; the sun bursting up over red deserts; the singing girls and the *thil* in Madame Kan's. Remember the *thil*, Thekla? Ice cold and greenish, bubbling in blue glasses?"

He knew why Thekla snarled and sprang at him, and it wasn't Thekla he threw down on the soft earth so much as a tall youngster with a fair mustache, who had goaded with good intent. Funny, thought MacIan, that well-intentioned goads hurt worse than the other kind.

A vast paw closed on his shoulder, hauling him back. Another, he saw, yanked Thekla upright. And Bhak the Titan's hairy travesty of a face peered down at them.

"Listen," he grunted, in his oddly articulated Esperanto. "I know what's up. I got ears, and village houses got thin walls. I heard the Nahali girl talking. I don't know which one of you has the treasure, but I want it. If I don't get it . . ."

His fingers slid higher on MacIan's shoulder, gripped his throat. Six fingers, like iron clamps. MacIan heard Thekla choking and cursing; he managed to gasp:

"You're in the wrong place, Bhak. We're men. I though you only strangled women."

The grip slackened a trifle. "Men too," said Bhak slowly. "That's why I had to run away from Titan. That's why I've had to run away from everywhere. Men or women—anyone who laughs at me."

MacIan looked at the blank-eyed, revolting face, and wondered that anyone could laugh at it. Pity it, shut it harmlessly away, but not laugh.

Bhak's fingers fell away abruptly. "They laugh at me," he repeated miserably, "and run away. I know I'm ugly. But I want friends and a wife, like anyone else. Especially a wife. But they laugh at me, the women do, when I ask them. And . . ." He was shaking suddenly with rage and his face was a beast's face, blind and brutal. "And I kill them. I kill the damned little vixens that laugh at me!"

He stared stupidly at his great hands. "Then I have to run away. Always running away, alone." The bright, empty eyes met MacIan's with deadly purpose. "That's why I want the money. If I have money, they'll like me. Women always like men who have money. If I kill one of you, I'll have to run away again. But if I have someone to go with me. I won't mind."

Thekla showed his pointed teeth. "Try strangling a Nahali girl, Bhak. Then we'll be rid of you."

Bhak grunted. "I'm not a fool. I know what the Nahali do to you. But I want that money the girl told about, and I'll get it. I'd get it now, only Lehn will come."

He stood over them, grinning. MacIan drew back, between pity and disgust. "The Legion is certainly the System's garbage dump," he muttered in Martian. loud enough for Thekla to hear, and smiled at the low-canaler's stifled taunt. Stifled, because Lehn was coming up, his heavy water-boots thudding on the soggy ground.

WITHOUT a word the three fell in behind the officer, whose face had taken on an unfamiliar stony grimness. MacIan wondered whether it was anger at him, or fear of what they might get in the swamp. Then he shrugged; the young cub would have to follow his own trail, wherever it led. And MacIan took a stern comfort from this thought. His own feet were irrevocably directed; there was no doubt, no turning back. He'd never have again to go through what Lehn was going through. All he had to do was wait.

The plank bridge groaned under them, almost touching the water in the moat. Most ingenious, that moat. The Nahali could swim it in their sleep, normally, but when the conductor rods along the bottom were turned on, they literally burned out their circuits from an overload. The swamp-rats packed a bigger potential than any Earthly electric eel.

Ian MacIan, looking at the lights of the squalid village that lay below the fort, reflected that the Nahali had at least one definitely human trait. The banging of a three-tiered Venusian piano echoed on the heavy air, along with shouts and laughter that indicated a free flow of "swamp juice." This link in the chain of stations surrounding the swamplands was fully garrisoned only during the rains, and the less warlike Nahali were busy harvesting what they could from the soldiers and the rabble that came after them.

Queer creatures, the swamp-rats, with their ruby eyes and iridescent scales. Nature, in adapting them to their wet, humid environment, had left them somewhere between warm-blooded mammals and cold-blooded reptiles, anthropoid in shape, man-sized, capricious. The most remarkable thing about them was their breathing apparatus, each epithelial cell forming a tiny electrolysis plant to extract oxygen from water. Since they lived equally on land and in water, and since the swamp air was almost a mist, it suited them admirably. That was why they had to wait for the rains to go raiding in the fertile uplands; and that was why hundreds of Interworld Legionnaires had to swelter on the strip of soggy ground between swamp and plateau to stop them.

MacIan was last in line. Just as his foot left the planks, four heads jerked up as one, facing to the darkening sky.

"Rain!"

Big drops, splattering slowly down, making a sibilant whisper across the swamp. The pipes broke off, leaving the ears a little deafened with the lack of them after so long. And MacIan, looking at Lehn, swore furiously in his heart.

The three men paused, expecting an order to turn back, but Lehn waved them on.

"But it's raining," protested Bhak. "We'll get caught in the attack."

The officer's strangely hard face was turned toward them. "No," he said, with an odd finality, "they won't attack. Not yet."

They went on, toward the swamp that was worse in silence than it had been with the praying pipes. And MacIan, looking ahead at the oddly assorted men plowing grimly through the mud, caught a sudden glimpse of something dark and hidden, something beyond the simple threat of death that hung always over a reconnoitering patrol.

THE swamp folded them in. It is never truly dark on Venus, owing to the thick, diffusing atmosphere. There was enough light to show branching, muddy trails, great still pools choked with weeds, the spreading *liha*-trees with their huge pollen pods, everything dripping with the slow rain. MacIan could hear the thudding of that rain for miles around on the silent air; the sullen forerunner of the deluge.

Fort and village were lost in sodden twilight. Lehn's boots squelched onward through the mud of a trail that rose gradually to a ridge of higher ground. When he reached the top, Lehn turned abruptly, his electro-gun seeming to materialize in his hand, and MacIan was startled by the bleak look of his pink young face.

"Stop right there," said Lehn quietly. "Keep your hands up. And don't speak until I'm finished."

He waited a second, with the rain drumming on his waterproof coverall, dripping from the ends of his fair mustache. The others were obedient, Bhak a great grinning hulk between the two slighter men. Lehn went on calmly.

"Someone has sold us out to the Nahali. That's how I know they won't attack until they get the help they're waiting for. I had to find out, if possible, what preparations they have made for destroying our electrical supply, which is our only vulnerable point. But I had a double purpose in calling this party. Can you guess what it is?"

MacIan could. Lehn continued:

"The traitor had his price; escape from the Legion, from Venus, through the swamp to Lhiva, where he can ship out on a tramp. His one problem was to get away from the fort without being seen, since all leaves have been temporarily cancelled."

Lehn's mist-grey eyes were icy. "I gave him that chance."

Bhak laughed, an empty, jarring roar. "See? That's what the Nahali girl said. She said, 'He can get what he needs, now. He'll get away before the rains, probably with a patrol; then our people can attack.' I know what he needed. Money! And I want it."

"Shut up!" Lehn's electro-gun gestured peremptorily. "I want the truth of this. Which one of you is the traitor?"

Thekla's pointed white teeth gleamed. "MacIan loves the Legion, sir. *He* couldn't be guilty."

Lehn's gaze crossed MacIan's briefly, and again the Scot had a fleeting glimpse of something softer beneath the new hardness. It was something that took him back across time to a day when he had been a green subaltern in the Terran Guards, and a hard-bitten, battle-tempered senior officer had filled the horizon for him.

It was the something that had made Lehn offer him a chance, when his trap was set and sprung. It was the something that was going to make Lehn harder on him now than on either Bhak or Thekla. It was hero-worship.

MacIan groaned inwardly. "Look here," he said. "We're in Nahali country. There may be trouble at any moment. Do you think this is the time for detective work? You may have caught the wrong men anyway. Better do your job of reconnoitering, and worry about the identity of the traitor back in the fort."

"You're not an officer now, MacIan!" snapped Lehn. "Speak up, and I want the truth. You, Thekla!"

Thekla's black eyes were bitter. "I'd as well be here as anywhere, since I can't be on Mars. How could I go back, with a hanging charge against me?"

"MacIan?" Lehn's grey gaze was levelled stiffly past his head. And MacIan was quivering suddenly with rage; rage against the life that had brought him where he was, against Lehn, who was the symbol of all he had thrown away.

"Think what you like," he whispered, "and be damned!"

BHAK'S movement came so swiftly that it caught everyone unprepared. Handling the Martian like a child's beanbag, he picked him up and hurled him against Lehn. The electro-gun spat a harmless bolt into empty air as the two fell struggling in the mud. MacIan sprang forward, but Bhak's great fingers closed on his neck. With his free hand, the Titan dragged Thekla upright; he held them both helpless while he kicked the sprawling Lehn in the temple.

In the split second before unconsciousness took him, Lehn's eyes met MacIan's, and they were terrible eyes. MacIan groaned, "You young fool!" Then Lehn was down, and Bhak's fingers were throttling him.

"Which one?" snarled the Titan. "Give me the money, and I'll let you go. I'm going to have the money, if I have to kill you. Then the girls won't laugh at me. Tell me. Which one?"

MacIan's blue eyes widened suddenly. With all his strength he fought to croak out one word: "Nahali!"

Bhak dropped them with a grunt. Swinging his great hands, forgetting his gun completely, he stood at bay. There was a rush of bodies in the rain-blurred dusk, a flash of scarlet eyes and triangular mouths laughing in queer, noseless faces. Then there were scaly, man-like things hurled like battering-rams against the Legionnaires.

MacIan's gun spat blue flame; two Nahali fell, electrocuted, but there were too many of them. His helmet was torn off, so that his drenched white hair blinded him; rubber-shod fists and feet lashed against reptilian flesh. Somewhere just out

of sight, Thekla was cursing breathlessly in low-canal argot. And Lehn, still dazed, was crawling gamely to his feet; his helmet had protected him from the full force of Bhak's kick.

The hulking Titan loomed in the midst of a swarm of red-eyed swamp-rats. And MacIan saw abruptly that he had taken off his clumsy gloves when he had made ready to strangle his mates. The great six-fingered hands stretched hungrily toward a Nahali throat.

"Bhak!" yelled MacIan. "*Don't . . .!*"

The Titan's heavy laughter drowned him out; the vast paws closed in a joyous grip. On the instant, Bhak's great body bent and jerked convulsively; he slumped down, the heart burned out of him by the electricity circuited through his hands.

Lehn's gun spoke. There was a reek of ozone, and a Nahali screamed like a stricken reptile. The Venusian cried out in sudden pain, and was silent; MacIan, struggling upright, saw him buried under a pile of scaly bodies. Then a clammy paw touched his own face. He moaned as a numbing shock struck through him, and lapsed into semi-consciousness.

HE had vague memories of being alternately carried and towed through warm lakes and across solid ground. He knew dimly that he was dumped roughly under a *liha*-tree in a clearing where there were thatched huts, and that he was alone.

After what seemed a very long time he sat up, and his surroundings were clear. Even more clear was Thekla's thin dark face peering amusedly down at him.

The Martian bared his pointed white teeth, and said, "Hello, traitor."

MacIan would have risen and struck him, only that he was weak and dizzy. And then he saw that Thekla had a gun.

His own holster was empty. MacIan got slowly to his feet, raking the white hair out of his eyes, and he said, "You dirty little rat!"

Thekla laughed, as a fox might laugh at a baffled hound. "Go ahead and curse me, MacIan. You high-and-mighty renegade! You were right; I'd rather swing on Mars than live another month in this damned sweat-box! And I can laugh at you, Ian MacIan! I'm going back to the deserts and the wine-shops on the Jekkara Low-canal. The Nahali girl didn't mean money; she meant plastic surgery, to give me another face. I'm free. And you're going to die, right here in the filthy mud!"

A slow, grim smile touched MacIan's face, but he said nothing.

"Oh, I understand," said Thekla mockingly. "You fallen swells and your honor! But you won't die honorably, any more than you've lived that way."

MacIan's eyes were contemptuous and untroubled.

The pointed teeth gleamed. "You don't understand, MacIan. Lehn isn't going to die. He's going back to face the music, after his post is wiped out. I don't know what they'll do to him, but it won't be nice. And remember, MacIan, he thinks you sold him out. He thinks *you* cost him his post, his men, his career: his honor, you scut! Think that over when the swamp-rats go to work on you—they like a little fun now and then—and remember I'm laughing!"

MacIan was silent for a long time, hands clenched at his sides, his craggy face carved in dark stone under his dripping white hair. Then he whispered, "Why?"

Thekla's eyes met his in sudden intense hate. "Because I want to see your damned proud, supercilious noses rubbed in the dirt!"

MacIan nodded. His face was strange, as though a curtain had been drawn over it. "Where's Lehn?"

Thekla pointed to the nearest hut. "But it won't do you any good. The rats gave him an overdose, accidentally, of course, and he's out for a long time."

MACIAN went unsteadily toward the hut through rain. Over his shoulder he heard Thekla's voice: "Don't try anything funny, MacIan. I can shoot you down before you're anywhere near an escape, even if you could find your way back without me. The Nahali are gathering now, all over the swamp; within half an hour they'll march on the fort, and then on to the plateaus. They'll send my escort before they go, but you and Lehn will have to wait until they come back. You can think of me while you're waiting to die, MacIan; me, going to Lhiva and freedom!"

MacIan didn't answer. The rhythm of the rain changed from a slow drumming

to a rapid, vicious hiss; he could see it, almost smoking in the broad leaves of the *liha*-trees. The drops cut his body like whips, and he realized for the first time that he was stripped to trousers and shirt. Without his protective rubber coverall, Thekla could electrocute him far quicker even than a Nahali, with his service pistol.

The hut, which had been very close, was suddenly far off, so far he could hardly see it. The muddy ground swooped and swayed underfoot. MacIan jerked himself savagely erect. Fever. Any fool who prowled the swamp without proper covering was a sure victim. He looked back at Thekla, safe in helmet and coverall, grinning like a weasel under the shelter of a pod-hung tree-branch.

The hut came back into proper perspective. Aching, trembling suddenly with icy cold, he stooped and entered. Lehn lay there, dry but stripped like MacIan, his young face slack in unconsciousness. MacIan raised a hand, let it fall limply back. Lehn was still paralyzed from the shock. It might be hours, even days before he came out of it. Perhaps never, if he wasn't cared for properly.

MacIan must have gone a little mad then, from the fever and the shock to his own brain, and Thekla. He took Lehn's shirt in both hands and shook him, as though to beat sense back into his brain, and shouted at him in hoarse savagery.

"All I wanted was to die! That's what I came to the Legion for, to die like a soldier because I couldn't live like an officer. But it had to be honorably, Lehn! Otherwise . . ."

He broke off in a fit of shivering, and his blue eyes glared under his white, tumbled hair. "You robbed me of that, damn you! You and Thekla. You trapped me. You wouldn't even let me die decently. I was an officer, Lehn, like you. Do you hear me, young fool? I had to choose between two courses, and I chose the wrong one. I lost my whole command. Twenty-five hundred men, dead.

"They might have let me off at the court-martial. It was an honest mistake. But I didn't wait. I resigned. All I wanted was to die like a good soldier. That's why I volunteered. And you tricked me, Lehn! You and Thekla."

He let the limp body fall and crouched there, holding his throbbing head in his hands. He knew he was crying, and couldn't stop. His skin burned, and he was cold to the marrow of his bones.

Suddenly he looked at Lehn out of bright, fever-mad eyes. "Very well," he whispered. "I won't die. You can't kill me, you and Thekla, and you go on believing I betrayed you. I'll take you back, you two, and fight it out. I'll keep the Nahali from taking the fort, so you can't say I sold it out. I'll make you believe me!"

From somewhere, far off, he heard Thekla laugh.

MACIAN huddled there for some time, his brain whirling. Through the rain-beat and the fever-mist in his head and the alternate burning and freezing that racked his body, certain truths shot at him like stones from a sling.

Thekla had a gun that shot a stream of electricity. A gun designed for Nahali, whose nervous systems were built to carry a certain load and no more, like any set of wires. The low frequency discharge was strong enough to kill a normal man only under ideal conditions; and these conditions were uniquely ideal. Wet clothes, wet skin, wet ground, even the air saturated.

Then there were metal and rubber. Metal in his belt, in Lehn's belt; metal mesh, because the damp air rotted everything else. Rubber on his feet, on Lehn's feet. Rubber was insulation. Metal was a conductor.

MacIan realized with part of his mind that he must be mad to do what he planned to do. But he went to work just the same.

Ten minutes later he left the hut and crossed the soaking clearing in the downpour. Thekla had left the *liha*-tree for a hut directly opposite Lehn's; he rose warily in the doorway, gun ready. His sly black eyes took in MacIan's wild blue gaze, the fever spots burning on his lean cheekbones, and he smiled.

"Get on back to the hut," he said. "Be a pity if you die before the Nahali have a chance to try electro-therapy."

MacIan didn't pause. His right arm was hidden behind his back. Thekla's jaw tightened. "Get back or I'll kill you!'

MacIan's boots sucked in the mud. The beating rain streamed from his white hair, over his craggy face and gaunt shoulders. And he didn't hesitate.

Thekla's pointed teeth gleamed in a sudden snarl. His thumb snapped the trigger; a bolt of blue flame hissed toward the striding Scot.

MacIan's right hand shot out in the instant the gun spoke. One of Lehn's rubber boots cased his arm almost to the shoulder, and around the ankle of it a length of metal was made fast; two mesh belts linked together. The spitting blue fire was gathered to the metal circle, shot down the coupled lengths, and died in the ground.

The pistol sputtered out as a coil fused. Thekla cursed and flung it at MacIan's head. The Scot dodged it, and broke into a run, dropping Lehn's boot that his hands might be free to grapple.

Thekla fought like a low-canal rat, but MacIan was bigger and beyond himself with the first madness of fever. He beat the little Martian down and bound him with his own belt, and then went looking for his clothes and gun.

He found them, with Lehn's, in the hut next door. His belt pouch yielded quinine; he gulped a large dose and felt better. After he had dressed, he went and wrestled Lehn into his coverall and helmet and dragged him out beside Thekla, who was groaning back to consciousness in the mud.

Looking up, MacIan saw three Nahali men watching him warily out of scarlet eyes as they slunk toward him.

Thekla's escort. And it was a near thing. Twice clammy paws seared his face before he sent them writhing down into the mud, jerking as the overload beat through their nervous systems. Triangular mouths gaped in noseless faces, hand-like paws tore convulsively at scaly breast-plates, and MacIan, as he watched them die, said calmly:

"There will be hundreds of them storming the fort. My gun won't be enough. But somehow I've got to stop them."

No answer now. He shrugged and kicked Thekla erect. "Back to the fort, scut," he ordered, and laughed. The linked belts were fastened now around Thekla's neck, the other end hooked to the muzzle of MacIan's gun, so that the slightest rough pull would discharge it. "What if I stumble?" Thekla snarled, and MacIan answered, "You'd better not!"

Lehn was big and heavy, but somehow MacIan got him across his shoulders. And they started off.

THE fringe of the swamp was in sight when MacIan's brain became momentarily lucid. Another dose of quinine drove the mists back, so that the fort, some fifty yards away, assumed its proper focus. MacIan dropped Lehn on his back in the mud and stood looking, his hand ready on his gun.

The village swarmed with swamp-rats in the slow, watery dawn. They were ranged in a solid mass along the edges of the moat, and the fort's guns were silent MacIan wondered why, until he saw that the dam that furnished power for the turbine had been broken down.

Thekla laughed silently. "My idea, MacIan. The Nahali would never have thought of it themselves. They can't drown, you know. I showed them how to sneak into the reservoir, right under the fort's guns, and stay under water, loosening the stones around the spillway. The pressure did the rest. Now there's no power for the big guns, nor the conductor rods in the moat."

He turned feral black eyes on MacIan. "You've made a fool of yourself. You can't stop those swamp-rats from tearing the fort apart. You can't stop me from getting away, after they're through. You can't stop Lehn from thinking what he does. You haven't changed anything by these damned heroics!"

"Heroics!" said MacIan hoarsely, and laughed. "Maybe." With sudden viciousness he threw the end of the linked belts over a low *liha*-branch, so that Thekla had to stand on tiptoe to keep from strangling. Then, staring blindly at the beleagured fort, he tried to beat sense out of his throbbing head.

"There was something," he whispered. "Something I was saying back in the swamp. Something my mind was trying to tell me, only I was delirious. What was it, Thekla?"

The Martian was silent, the bloody grin set on his dark face. MacIan took him by

the shoulders and shook him. "What was it?"

Thekla choked and struggled as the metal halter tightened. "Nothing, you fool! Nothing but Nahali and *liha*-trees."

"*Liha*-trees!" MacIan's fever-bright eyes went to the great green pollen-pods hung among the broad leaves. He shivered, partly with chill, partly with exultation. And he began like a madman to strip Lehn and Thekla of their rubber coveralls.

Lehn's, because it was larger, he tented over two low branches. Thekla's he spread on the ground beneath. Then he tore down pod after pod from the *liha*-tree, breaking open the shells under the shelter of the improvised tent, pouring out the green powder on the groundcloth.

When he had a two-foot pile, he stood back and fired a bolt of electricity into the heart of it.

Thick, oily black smoke poured up, slowly at first, then faster and faster as the fire took hold. A sluggish breeze was blowing out of the swamp, drawn by the cooler uplands beyond the fort; it took the smoke and sent it rolling toward the packed and struggling mass on the earthworks.

Out on the battlefield, Nahali stiffened suddenly, fell tearing convulsively at their bodies. The beating rain washed the soot down onto them harder and harder, streaked it away, left a dull film over the reptilian skins, the scaly breastplates. More and more of them fell as the smoke rolled thicker, fed by the blackened madman under the *liha*-tree, until only Legionnaires were left standing in its path, staring dumbly at the stricken swamp-rats.

The squirming bodies stilled in death. Hundreds more, out on the edges of the smoke, seeing their comrades die, fled back into the swamp. The Earthworks were cleared. Ian MacIan gave one wild shout that carried clear to the fort. Then he collapsed, crouched shivering beside the unconscious Lehn, babbling incoherently.

Thekla, strained on tiptoe under the tree-branch, had stopped smiling.

The fever-mists rolled away at last. MacIan woke to see Lehn's pink young face, rather less pink than usual, bending over him.

Lehn's hand came out awkwardly. "I'm sorry, MacIan. Thekla told me; I made him. I should have known." His grey eyes were ashamed. MacIan smiled and gripped his hand with what strength the fever had left him.

"My own fault, boy. Forget it."

Lehn sat down on the bed. "What did you do to the swamp-rats?" he demanded eagerly. "They all have a coating as though they'd been dipped in paraffin!"

MacIan chuckled. "In a way, they were. You know how they breathe; each skin cell forming a miniature electrolysis plant to extract oxygen from water. Well, it extracts hydrogen too, naturally, and the hydrogen is continually being given off, just as we give off carbon dioxide.

"Black smoke means soot, soot means carbon. Carbon plus hydrogen forms various waxy hydrocarbons. Wax is impervious to both water and air. So when the oily soot from the smoke united with the hydrogen exuded from the Nahali's bodies, it sealed away the life-giving water from the skin-cells. They literally smothered to death, like an Earthly ant doused with powder."

Lehn nodded. He was quiet for a long time, his eyes on the sick-bay's well-scrubbed floor. At length, he said:

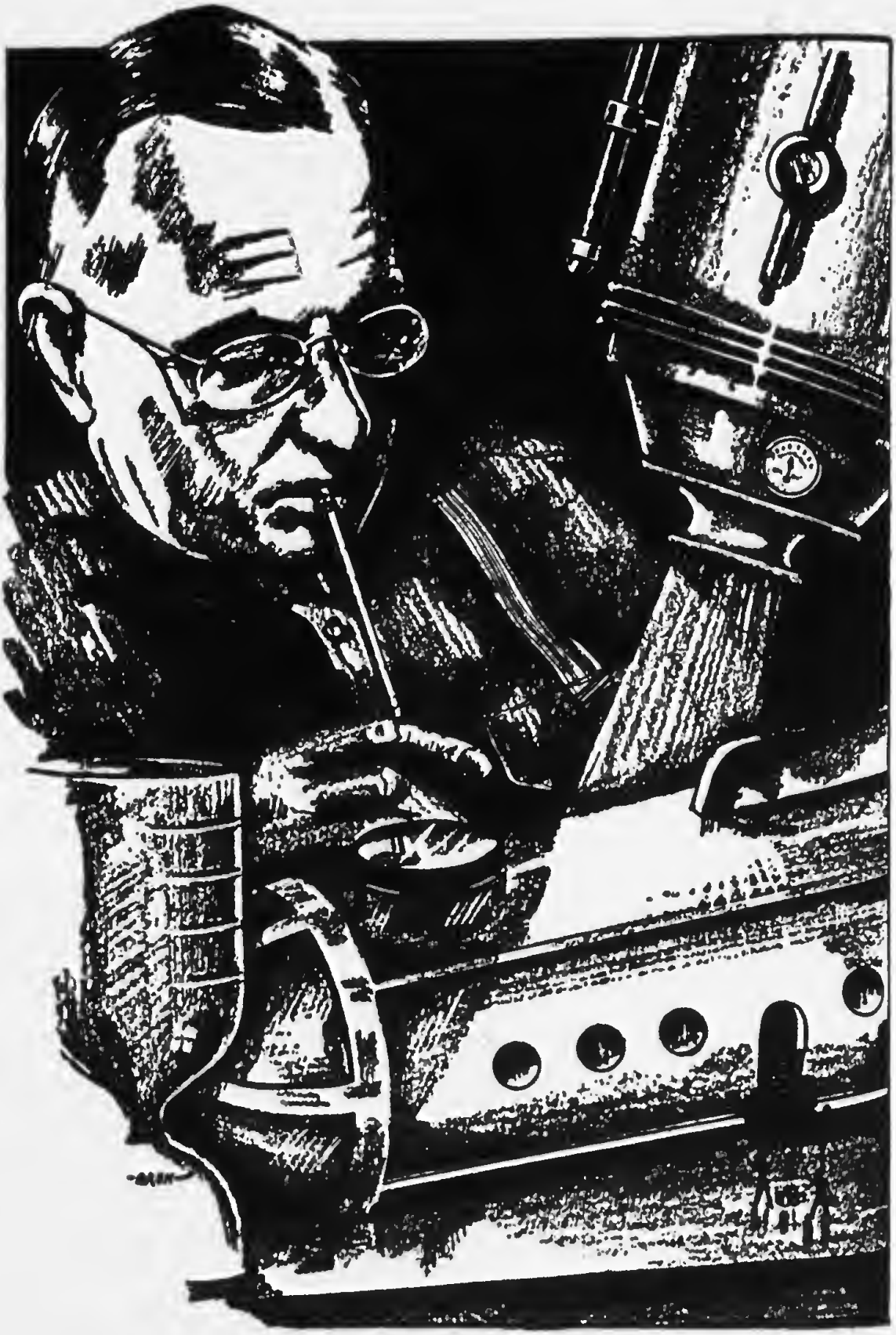
"My offer still goes, MacIan. Officer's examinations. One mistake, an honest one, shouldn't rob you of your life. You don't even know that it would have made any difference if your decision had been the other way. Perhaps there was no way out."

MacIan's white head nodded on the pillow.

"Perhaps I will, Lehn. Something Thekla said set me thinking. He said he'd rather die on Mars than live another month in exile. I'm an exile too, Lehn, in a different way. Yes, I think I'll try it. And if I fail again—" he shrugged and smiled—"there are always Nahali."

It seemed for a minute after that as though he had gone to sleep. Then he murmured, so low that Lehn had to bend down to hear him:

"Thekla will hang after the court-martial. Can you see that they take him back to Mars, first?"



On the silent wings of thought flashed the monstrous message that panicked an already doomed and crumbling World—
"Earthlings! We, your masters, have failed!"

TWILIGHT OF THE TENTH WORLD

By THORNTON AYRE

THEY came without warning from a place no man could discover. People in different parts of the earth sent through hurried reports that they had seen the invaders floating ten miles above them, stationary and presumably watching. Watching for what?

Was it war? War by interplanetary invaders? Possibly. Different countries bristled at the ready, but nothing happened. Giant telescopes were turned on the interlopers but the mirror-screens merely reflected back tapering gray ovoids catching the light of the sun. No sign of any living things aboard them—no sign of anything, in fact. Damned mysterious!

Bookworms took to reading "Wars of the Worlds" again; the leading dailies came over all Martian and went the limit of their imaginations depicting glorified bugs descending on earth. Funny how they always thought of bugs.

Stratomen braved the greatest reaches of the atmosphere, but came nowhere near the interlopers because they rose out of range. There was something indescribably irritating about the way they floated there, a dozen of them. London saw them first, then Paris. Report came in from Vienna, Ceylon, Leningrad, Antwerp, Toronto—and at length, New York.

It was as though the twelve gray vessels were conducting a very minute examination.

New Yorkers were exasperated, but not frightened any more. No damage had happened anywhere else, so why here? Mount Wilson verified the European astronomers' reports as the things had passed high over California.

To Walt Danning of the New York Transcontinental Airways, the things were just a pain in the neck. Twice he had been up to get near them, and they had gently receded. Now he stood on the tarmac outside the messroom door and stared up at them with angry eyes as they hung like blood-red cigars in the westering sunlight.

"Blasted cheek!" he observed at last, rubbing his upstanding thatch of red hair. "What in heck do they think we are? Specimens?"

"If they do they're probably right."

It was Lance Dugan, the Airways' chief physicist, who answered. He had come out to get a breath of fresh air away from the eternal smells in which he lived and moved and had his being. He stood now with his long-legged, narrow-shouldered frame propped against the door jamb, cigarette in mouth. His lean face was elevated upward, his dark eyes slitted.

"We're not specimens!" Walt snorted. "Least I'm not! I'm a man on two legs, American, and proud of it. I'm no bug!"

"To those things up there we're all bugs," Lance sighed. "Just like real insects are nothing more than insects to us. Matter of intelligence rating. Those up there are cleverer than us down here, so we're right below their interest. That's why they haven't attacked us. We don't go about slaughtering insects wholesale because they're beneath our range of intelligence.

"So what?" Walt muttered. "Anyway, I don't like being stared at." He broke off, his blue eyes narrowing. Suddenly he shot out his leather jacketed arm and pointed. "Will you look?" he shouted. "A sort of red flash up there! Middle ship!"

Lance shot suddenly erect, staring fixedly. The pair of them gazed at that red spot as it glinted momentarily, then they searched the empty sky questioningly as a faint, rising hum crept into the evening stillness.

"It's a bomb!" Walt yelled abruptly. "I'd know that sound any place! It's a war!"

The sound reached a high-pitched scream. For a moment something was visible dropping against the rosy western sky; then the object dropped beyond horizon range. There was no resultant explosion; no concussion.

"It *must* be war!" Walt gulped, uncertain. He stared up again, his gaze not un-

mixed with astonishment when he saw the vessels suddenly move away. Gathering momentum they fled toward the west, vanished within seconds.

Lance turned suddenly, raced through the messroom into the general radio department. The men in control were already sitting listening to the first reports intoned over the main loudspeakers.

"... curious type of shell dropped by invaders upon open ground near Bridgeport, Connecticut. No full details yet. Apparently a new-type bomb. It just hisses, without causing any explosive damage. Nobody injured. More reports later."

Walt relaxed a little scratching his head. "Say, Lance, where's the sense in dropping a bomb that doesn't do anything but just hisses?"

Lance crushed out his cigarette as he shrugged his smocked shoulders. Though he made no answer his dark eyes showed he was grappling with some complex inner thought.

THE Bridgeport shell was the first in a series. Flying westwards during the evening, the unknown invaders dropped similar shells, always on open ground where nobody was hurt, near Cincinnati, St. Louis, Kansas, Denver, Salt Lake City, and San Francisco. A jittery American people heard the hasty reports of analysts over their radios.

The bombs were apparently harmless, fizzed in their holes like a kid's rocket. No reason to suppose that they would explode with any violence, but it was unsafe to try and extinguish them in case that very act started them onto something really nasty. That was what the analysts *said*: in solemn conclave by themselves they admitted they *couldn't* stop the darned thinks anyway. The holes were invincible.

So the holes fizzed, and America waited.

It was during the next day that reports came in from London, Paris, and other great cities of the earth that bombs had been dropped in their countries too. Why? Nobody could imagine. Attack these interlopers? Some hopes!

Amazing thing! After they had left their donations in various parts of the earth the unknowns just scrammed out of the skies to places beyond conjecture, no longer remained to haunt the earth. But those bombs still fizzed and nobody knew what to do about them.

In grave files the scientists of various countries, together with their respective heads of ballistics, went out to conduct investigations. The only thing they could figure out was that the original bombs had now vanished and given place to a hole that fizzed like hell, like water into which a white hot iron is plunged.

Trouble was, the holes were getting bigger everywhere!

Nobody outside of the scientists worried unduly. What were a few holes, anyway? So long as the invaders had gone that was all that counted: whatever legacy they had left behind did not signify. Or did it? One or two newspaper editors with more scientific leader writers than others prattled gaily about atomic force and said it might work out like Wells' "World Set Free." So the bookworms changed their volumes and browsed afresh.

Only it was not atomic force either!

"In fact," Lance told Walt, when they were together in their apartment in the city, "nobody knows what the hell it is! I was down at the Bridgeport hole with Saunders and the rest of the gang today but we got no place. We tried acids, explosives, X-rays, and Heaven knows what on that bomb hole, but it made no difference. And the ground was just eating itself out like an apple stuffed with caustic. I tell you, it's nasty!"

Walt crossed his feet against the mantleshelf. "Don't tell me you envisage ever-expanding holes! What would road menders do for a living?"

"Listen, Walt, this is serious!" Lance faced him grimly. "There are roughly twenty-four growing holes in different parts of the world; they are spreading at the rate of several feet a day; later on they may go even faster. Those invaders dropped something that is unknown to us, something eats away matter completely. It consumes rock, soil and metal—yes, even tungsten! We used tungsten bars to experiment and they evaporated like fizz-water in a couple of minutes. Tungsten, which we can't melt under three thousand Centigrade! Think that over!"

Walt turned. "But hang it, man, you must have some sort of theory. You're a

physicist, and a darned good one. If it isn't atomic force, what is it?"

Lance smiled a little. "You forget I'm not a big-shot scientist; it doesn't matter to anybody what I think. Doc Saunders does all the talking. But, privately, I think it's done by polarizing gravitation. The spectrum analyses we made, and my own calculations, led me to that revolutionary theory. But I daren't say anything about it to the higher ups because it might cost me my job."

"Polarized gravitation! What on earth's that?"

"Just this—the best of us can't explain what gravity is. Enstein favors the etheric rumple theory; other scientists say magnetism, or a sort of force. Modern scientists favor the view of electrical energy. If that is so it must be an energy inherent in atoms, in the electrons and protons that go to make them up, because everything is made of atoms. Right?"

"So I've always understood."

"Right. Now, if there are forces which can block sound and light—which there are of course—there may be similar forces that can block gravitative influence, only our science isn't up to understanding them yet. Because of that it does not say they cannot exist. Suppose the shells that dropped released a counter-gravity force upon impact: do you see what would happen? The gravitational laws operative in an atom, just as much as in a solar system, would cease to exist! Electrons would fly away from the degravitated proton, the molecule itself would collapse, and it would be *progressive!* Because as one molecule became degravitated the one next to it would automatically become unstable and behave the same way. So it would go on—will go on! The original shell that released the energy would disappear, but that wouldn't matter. The thing would be done then. And of course there is no noise or concussion; just the slow degravitation process."

"In that case—" Walt stared in front of him. Suddenly he lowered his feet and shot upright. "My Lord, *anything* can happen! Anything will give way. Anything with molecules—and there isn't anything without 'em!"

"I'm pretty sure I'm right," Lance went on moodily. "When it catches up on cities . . ." He left his sentence unfinished.

"But the science back of such an idea!" Walt whistled. "Who in heck would want to start these holes anyway? What's it all about?"

"Don't ask me! But we do know—at least I do—that we're facing a situation that's going to get mighty desperate as time goes on. Mighty desperate!"

II

WHEN Lance had envisaged trouble ahead he had only guessed the half of it, for more alarms muscled in from a totally different angle, one that neither he nor anybody else could have anticipated. It all started the following morning when the newspapers reported that Henry Hyson, the level-headed, emotionless chief of Hyson's Chain Stores had thrown himself out of his bedroom window seventy-two stories up.

Naturally Henry was not beautiful when he struck the sidewalk. It was tragic, of course, and the public was dutifully shocked, but nobody knew why Henry Hyson had risen from bed and taken a death leap.

In itself it would have been inconclusive, but reports drifting in during the day from scattered parts of America, England, and Europe revealed that hundreds of people had committed suicide during the night. It suddenly became a matter of international importance. What had happened to them in the night, anyway? The psychologists went broody, but they hatched nothing. Nothing to hatch!

That was only the start. During the day there was the case of the man in the New York subway train who dozed on his way to work. He woke up suddenly, according to witnesses, screaming—"They're burning through me!" Then he smashed his way through the train window and jumped, killing himself instantly on the live rail outside.

He was one instance. In all there were twenty cases of people awakening from sleep to instantly go mad and kill themselves. It was horrible, unreasonable. The shadow of a tragic blot cast itself on an already troubled world.

Though Lance Dugan was primarily a

physicist, the psychological aspect of the new riddle interested him not a little. Much to the surprise of the staff, and even more so to Walt, he went to the trouble of carefully noting down all the wild statements uttered by those who had afterwards committed suicide. Not that they made sense—yet. And besides, there was this business of expanding holes beginning to obsess the public mind.

To New Yorkers the Bridgeport hole was the main concern. Headlines got larger and larger, matching the hole. It had now spread to Yonkers and New Haven. The waters of Long Island Sound were rising incessantly over Long Island itself, sending monstrous ship-smashing disturbances through New York's harbors. And the water pouring into the hole just went out into nothing like everything else.

Evacuation orders were put into effect. People poured from the stricken hole areas in thousands, were either looked after by relatives or installed in hastily arranged Government camps. From a mystery, the holes had changed to a menace. Not only America, but each country was getting eaten into nothing *by* nothing. It was idiotic—a merciless paradox.

Congress in America limited itself to arranging evacuation; the President ordered scientists to investigate. Then before a solemn convention of scientists in New York Lance Dugan's turn came to make suggestions. He took a chance and unwrapped his pet theory.

"I realize, gentlemen, that it is a far cry from holes in the earth to the end of the world," he said quietly, looking round on the grave faces; "but that is what I unhesitatingly predict unless science finds a way round the problem. I have outlined my theory to you—and I have no ideas on how to defeat the scientific menace which I believe is threatening us."

"End of the world!" snorted Dr. Saunders contemptuously, his popeyes arrogant. "Sheer fantasy, man! Same as your ideas of polarized gravitation! There isn't such a thing!"

"Not that we know of, and that's why we're licked," Lance retorted. "Either we find out how it's done, or perish." He stared moodily in front of him, thumped his fist on the table top. "Gentlemen, I know I'm right!" he went on desperately. "Laugh at me if you will, but in a few weeks you'll see for yourselves. And I also believe there is something more behind all this—that there is a connection between people who have leapt to death and the mystery of the holes."

"I suppose," Saunders said, with measured acidity, "you infer that these holes give off some brain-disturbing element?"

"I had thought of that, yes, but my own private experiments show that to be incorrect. There is no connection. It's something deeper, something that embraces the whole field of psychology. For instance, have you gentlemen noticed that these people were *asleep* before killing themselves?"

"You mean that they dreamed about something that made them want to commit suicide?" Saunders demanded.

"I do, yes."

Lance stood in grim, flushed silence at the laughs round the assembly table. He was still glaring when the speaker's mallet brought order. The speaker himself spoke through his nicotine-tinted whiskers.

"After all, Mr. Dugan, we are scientists, not spinners of fairy tales! Either confine yourself to logical analysis or retire from the debate."

For a brief instant Lance hesitated, then he glanced at Saunder's big, grinning face.

"You'll have my resignation in the morning, sir," he stated briefly. "Since I cannot convince the best brains in science of the most obvious facts I may as well work alone. Thank you for listening, anyway."

He walked out of the room silently and closed the door.

"Dreams!" echoed Saunders, amidst the uncomfortable hush. "Good Lord, what next? These young men, you know," he went on paternally. "They mean well, but—damned fanciful! Now, about these holes. . ."

WHILE the scientists vapored the holes spread. In two weeks the Bridgeport hole had swallowed half of Long Island. A semicircle of hissing, spluttering nothing, reaching down into abysmal dark, began to encroach on New York's harbors with relentless power. merged toward the city.

Normal activity by millions of New Yorkers was hastily abandoned. There could be no commerce or civilized activity in a city threatened with ruthless extinction. From the eastern buildings that spreading maw could be distinctly seen, creeping ever nearer.

In other devastated areas of the world the same conditions of wild panic existed. With the threat of extinction now so palpably near at hand, humans changed from ordered pursuit to animalistic fury, trampled on the weaker ones in their frantic efforts to reach a possible land of safety. But there wasn't one; the unknown invaders had cunningly seen to that.

Every country had its holes, and in some of the countries the holes had gone downward far enough to touch and open volcanic seams. In consequence volcanic eruptions and earthquakes were rife, blanketing the shuddering world in dense overhead smoke through which daylight only reached with great difficulty.

It was Walt Danning's particular task in this world maelstrom to fly until he dropped from exhaustion, carrying refugees out of New York to parts westwards where they might find temporary surcease while a harried Government wrestled with the problem.

LANCE Dugan, his work with the Airways finished in any case, even had he not given in his resignation, still remained in New York. In fact he had the run of the whole apartment building: all other tenants had bolted to join the general exodus. Not so him. He remained where he was, unmindful of the view of destruction from the window, working all his waking hours on complicated notes and stewing over hefty volumes.

It was to Walt that he unburdened himself. Walt listened, lying flat on the bed, snatching a few hours relief before starting off again on his superhuman work of evacuating the still struggling thousands at the airports.

"While everybody else has kept track of the holes I've kept track of the suicides," Lance said slowly, flourishing his notes in the light of the oil lamp. "By dint of sheer damned hard work I've managed to grab witnesses of several suicides and got the dying man or woman's last words. Every night for the past two weeks some fifty or more people have died. Here are a few of the things they've said before succumbing. Listen! 'They're burning through me!' 'The force shields are weakening!' 'On the tenth gangway!' 'They've come back!' 'They're visible against the stars!' Now, what do you figure to that lot?"

"Nuts—same as you!" Walt gave an enormous yawn.

"A person who's nuts doesn't refer to force-shields," Lance snapped. "The particular person who referred to them was a truck driver, with no more idea of force-shields than a Hottentot. Force-shields represent something in a science beyond our range. Again—'They are visible against the stars.' The 'they' referred to probably meant space ships. That couldn't have meant the space ships *we* saw because they left long ago, so why did the dreamer still see them? And why against the *stars?* Perhaps because—because it's a dark world. No sunshine."

"Oh, heck! Walt snorted. "Let a guy sleep, can't you?"

He coiled himself up on the bed, pulled the cover over his ears to deaden the eternal rumble of collapse from the doomed metropolis. Lance turned to the window, looked out on the advancing tide of ruin two miles away. People were scurrying through the streets. Night, hardly distinguishable from day, had closed down on the unlighted city. But there was light enough from fires.

Lance frowned, glanced again at his notes.

"Another world, affecting *ours*!" he breathed. "Affecting the minds of earthly people! Why?"

A deep snore from the bed answered him. Impatiently he turned back to the table, then swung round sharply as Walt suddenly awakened with a fiendish yell. He sat bolt upright, red hair standing on end, stared fixedly at the bedrail.

"He'll get me!" he whispered, rubbing his forehead absently. "He'll—"

Instantly Lance dived for him, seized his arms in a grip of iron.

"Walt, snap out of it! What's the matter?"

For answer Walt tore himself free and dashed for the window, holding his head

as he went. Like lightning Lance twirled after him, seized him as he reached the sash. Bringing up his right he planted a terrific blow under Walt's jaw, sent him spinning heavily across the room to collapse on the rug.

"Take it easy, Walt! Get a grip on yourself, man!"

Walt's face was suddenly taut and perspiring. Slowly he got to his feet, fingered his jaw reflectively. At last he gave a sheepish grin.

"Th-thanks," he stammered. "I guess you did more than you know of, socking me like that. I—I was going to jump out of that window."

"Because of something you dreamed?" Lance demanded, clutching him.

"Yeah." Walt shook his head fiercely. "Gosh, it was the maddest dream ever, and then some! Sort of thing you read about in imaginative stories. Men with machines mowing us down, great cigarlike ships flashing across the stars, halls of engines, galleries, men and women sweating and struggling— Curious people, big headed, like people that'll be here in the future, if any! Listen, Lance, it was so real it was positive anguish when a black-skinned guy with a head like a stratoballoon came shooting for me with a thing like a searchlight. It hurt! Hurt like hell! So real. . . ."

"It *was* real!" Lance stated quietly.

"Huh? Now look here—"

"Listen, can't you? If every one of those other folks who'd committed suicide had had somebody like me to knock the sense back into them they might not be dead now! You dreamed of an attack upon you—it upset your brain mighty hard. Think back on those other death-leapers, and what they said before leaping. You said 'He'll get me!' You know what *they* said. And remember the one who said 'They are visible against the stars.' You've just said yourself you saw ships flashing across the stars."

"I know, but— Hang it, it was only a dream! Those invaders still on my mind, I guess."

"The black guy who went for you was one of the invaders in person," Lance murmured. "I'm sure of it. You said a hall of engines. How many engine gangways, or aisles, were there?"

Walt screwed his eyes in thought. "Ten," he said. "So what?"

"One man died screaming They're on the tenth gangway'!"

"Hell!" Walt was startled. "Look, do you think—"

"I'll tell you what I think. We've stumbled on the most amazing thing that ever happened—mental contact with somewhere unknown. Does it not seem to you that if a dream can be so savage as to cause actual physical agony, enough to make suicide seem the only way out, it points to the fact that the mind is *linked* to the actual circumstances?"

"Maybe; but how? How come that only a few people have these awful dreams, and not everybody?"

"The few that have died from suicide actually died elsewhere at the same time! Double entity. A bit involved."

"I'll say!" Walt echoed incredulously. "Why was it that I did not jump to death as I wanted to?"

"BECAUSE in that other state you *didn't* die. Something happened to save you. You can't defeat Destiny and the laws of Nature. Had you died there you would also have died here, and there's an end of it."

Walt scratched his head, then he glanced up sharply as the phone rang. Lance whirled the instrument up impatiently.

"Lance Dugan speaking, yes. Who's calling? Huh? Oh—Dr. Saunders!" Lance glanced significantly at Walt. Walt stood watching, saw Lance's face change to grim hardness by degrees.

". . . a ghastly dream, eh? What? Oh, you tripped and knocked yourself out. All right when you recovered? Sure I was right! I told you that at the Convention. I'll be right over. I think I've got onto something important."

Lance dropped the receiver and dived for his hat and coat.

"Plane outside?" he asked briefly, and nodded quickly as Walt jerked his thumb toward the roof. "Good! We're hopping out to Washington—the Mark Bolton Hotel. Old Saunders scrammed out there when the Bridgeport Hole started hitting N. Y. C. Seems the phone wires are O. K. to Washington. Near as I can figure out

Saunders has had a dream too. He tried to commit suicide but stunned himself accidentally before he could do it. Anyway he's at last decided there must be something in what I told him. He's rounded up some of the scientists and is ready to listen. Let's go!"

"I'm due back at the Evacuation station in thirty minutes."

"To blazes with that. There'll be nothing left to evacuate at all soon, anyway."

Walt shrugged and whirled after his friend as he strode out into the corridor. In five minutes they were on the roof, took off over the dark, fire-ridden city. From the air they could see the flare of arcs at the airports and railway stations, the dim surging dark tides that betokened desperately struggling thousands trying to gain safety from the black half moon that yawned invincibly to the east.

"Devilish," Walt muttered. "What chances are there of things getting back to normal, Lance?"

"None!" Lance sat tight lipped, staring into the darkness ahead. His face was like a mask in the dashboard light.

"None! But surely—"

"Shut up; I'm thinking. Figuring out this dual personality angle. If I've got the right hunch we. . ." Lance relapsed into silence, biting his underlip.

There was not much sign of trouble as they passed over Philadelphia. From Baltimore, however, there were droves of airplanes leaping into the sky, scurrying to collect more refugees from the Cincinnati regions. The moon was out here, shed its pallid light upon roads black with automobiles and tramping people. Country roads, city roads—they were both blocked alike. The lights of temporary campfires winked like cigarette ends in the night.

III

IT was 10:30 when Walt and Lance touched Washington, landing right outside the city on deserted ground. To make the blocked airport would be madness. They lost an hour getting to civilization and a taxi, thence were whirled to the Mark Bolton Hotel in the city center. In room 26 on the 7th floor Dr. Saunders was waiting, around him standing a group of grave-faced men.

Lance walked in quietly, Walter behind him; then they both stopped as a tall, dignified figure turned slowly to face them.

"Mr. President!' Lance gasped, and immediately came to attention.

"Please be at your ease, Mr. Dugan," the President said quietly, miling rather anxiously. "My visit here was upon my own initiative. As a matter of fact, Dr. Saunders here contacted several scientists, who in turn relayed certain information to me. I felt it prudent to cut time to a minimum by coming straight here."

"I understand, sir," Lance moved forward slowly, glanced at Saunders. The big, red-faced scientist cleared his throat.

"In this room, Dugan, are most of the scientists who were present at the Convention. You told us that time would prove your point: I realize now that we all owe you a sincere apology. So far, all scientists in every country are at a deadlock. It becomes increasingly clear that you are the one man who knows anything at all, outlandish though your theory seems to be. You mentioned a dream connection, Dugan. I told you over the phone of my experience."

Lance looked at the plasters on Saunders' forehead, asked shortly.

"Just what did you dream about? The tiniest detail is important."

"I dreamed that a vast machine of some kind was breaking right over my head. It was steel, I think—some kind of metal anyway. A ray, pink in color, was turned onto it and it started to break up. I was right underneath it!" Saunders paused to mop his brow; his bulgy eyes went brighter with the fear of his remembrance. "Dugan, the mental horror of those moments was something incredible—paralyzing! I imagine a man standing facing a runaway auto would feel the same. The relentless certainty of death! I woke up suddenly—I went to bed with a headache, by the way—to find my mind in a turmoil. I wanted to do something to ease the awful agony in my brain. I rushed for the window, stumbled over a chair and struck my head on the dressing table . . . When I recovered I found I was calm again. Then I rang you up."

Lance stroked his eyebrow. "Hmmm . . . Do you remember if you saw a hall full of engines?"

"I certainly did! Multitudes of engines and people, men and women, all trying to do something. I can recall there were about nine islands of engines in one great hall."

"Nine islands mean ten gangways," Lance broke in. "That's all I wanted to know. I definitely believe I've got it! But it's the most incredible thing. I feel I'm right because otherwise hundreds of people could not leap to suicide for the same identical reason . . ." Lance paused a moment, went on slowly, "Mr. President—gentlemen—I believe that we of Earth are dual identities, that the entities we possess as human beings are only a *part* of our real selves—experimental offshoots of our real selves. Our real selves are situated on another planet, maybe far, maybe near. I don't know yet."

Saunders tried to strangle his look of disbelief. The President's keen eyes narrowed a little.

"Can you substantiate this rather—er—uncommon theory, Mr. Dugan?"

"I think I can, yes. Some time ago Duke University of North Carolina made elaborate researches into the mysteries of mental telepathy. They made more than 100,000 separate experiments, and their results showed that human beings not only can read thoughts and transmit them, but that thought—as opposed to any other known force—does not weaken with distance! Instead it grows stronger the further away it goes! Bear that in mind, gentlemen, for I feel it explains the reason for the intensity of recent dream-experiences."

"You mentioned dual personality," Saunders murmured.

"Exactly. There is, says Dunne, who wrote that masterpiece 'An Experiment with Time,' increasing evidence that the threshold of perception not only shifts when we sleep, but that we are given, through dreams, access to a different range of apprehension, a range the waking consciousness can never command, and from age to age that threshold *changes!* I believe it changes because the world we view in dreams naturally progresses and therefor alters its outlines."

The scientists glanced at one another in surprise, turned back to Lance with renewed interest.

"Consider what dreams represent," he went on deliberately. "Sometimes they forecast an event long before it happens I could quote thousands of instances in the possession of the Society for Psychical Research. Now, we use at best only a fifth of our brain capacity. Were we to use *all* our capacity we would be able to forsee coming events very easily because of our tremendous mind force, which would project along the time-continuum and forsee any eventuality, even as we could comb the past."

"Possible," Saunders mused.

Lance gave a little shrug. "My theory, I admit, now takes a leap across all known laws of science. Is it possible that we of Earth are *experiments?* Nobody can explain the beginning of life very satisfactorily. The egg-to-man theory doesn't fit too well because there is an inexplicable gap between man and saurian. I submit that saurians were the real denizens of Earth and that man is a glorified experiment from elsewhere! Consider the human brain for a moment—a fifth of it works fairly well: we accomplish quite reasonable achievements. We have the power to reason, but the remaining part of our brain as any surgeon will tell you is just waste material. We say it is the subconscious region, that it is there for future evolution; wonderful theories are contrived to explain it. But it still remains *waste!* And why? Because it represents the section that should be filled in with active brain material if we were *complete!*"

The scientists were silent, clearly moved.

"Suppose we were sent to Earth long ago," Lance resumed. "Suppose that in our real state we were superhumanly clever? So clever we knew that by parting with a small portion of our brains we could be little the worse? Suppose, then, a chosen number of us made synthetic human beings, into whose skulls was placed a small section of our giant brains? These synthetic bodies were fired to earth to mature, to become the object of careful watching by those who had sent them. . .

"Do you not see that a mental kinship would always remain with the creator of us? Even as the child has kinship with the mother, as twins have kinship, as species have kinship? Mind force does not weaken in the journey across space

The remains of memories, the only door to our real selves, can be reached only through what we call the subconscious region. In daily waking life we cannot utilize it, but in sleep we can wing our way to the unknown—back, gentlemen, across space *whence we came!* In snatches, we live again through our kinship selves in the cosmos, our tiny brain linking into the space removed from our master brain. Now do you understand?"

"Amazing!" whispered Saunders, fascinated.

"There are other points. The children of the experimenters would be born like their parents, minus a fifth of their brains. I believe that by the law of Nature, when a man or woman dies on that other world the corresponding twin dies here. Think of the multitude of sudden deaths that occur for no apparent reason. Likewise, when a creature is born on that world the corresponding lesser-intelligent twin is born here. It is inevitable. For untold ages the process has gone on, but now comes a change to that unknown world.

"Invasion! What happens? The minds of our creators are tortured with doubts and fears, and our minds being linked to theirs are turmoiled as well! The greater always affects the lesser. That is why thousands have dreamed and died. They experienced the death agony of their particular creator and died when he, or she, did. In your case, Dr. Saunders, some accident in that other world saved your creator from death; a corresponding preventative occurred here and saved you. The same thing happened to Walt Danning here. Something saved him. We live and move in two places! We're sundered beings! The intense mental strain of our creators is reflected through us, stirs some of us to a pitch of mad hysteria. If our creators die, we must die too!"

"UNQUESTIONABLY," said the President slowly, "you have jumped over all of the frontiers of mind science, Mr. Dugan. And I for one believe you. There is so much evidence within our experience. But tell me, how are we to ever actually prove conclusively that you are right?"

"I have ideas that may work."

"Excellent! And whom do you imagine the invaders of this other world are?"

"The same ones that came here first and dropped polarized gravity shells!" Lance snapped. "And I begin to see why, too! Our creators deliberately deprived themselves of a fifth of their intellect to make us an experimental race. When they were their complete selves they were probably equal to, if not superior, in knowledge to the beings who are now invading them. But *now,* with their power lessened, our creators are at the mercy of the invaders. To make doubly sure the fifth-power could not be regained the invaders came here first and set about making our planet drop to bits beneath our feet. That will give them domination, just as it will mean our destruction. If our creators die, we die. And even if they survive our world collapses anyway. Don't ask me who these invaders are or what they're driving at. Our problem is to discover how to save ourselves and those who created us—even how to regain our wholeness so that we can perhaps overcome these invaders. We know that so far they have held out, though our innumerable suicides point to the death of hundreds in the struggle."

"And what will finally hapen to this world of ours?" the President asked gravely.

"It is doomed, sir," Lane answered in a quiet voice. "I do not like admitting defeat, but we have no scientific means of defeating this relentless menace. Our world is corroding, smashing up. We have not even the secret of space travel whereby we could move a few of our people to another planet. All we can do is hang on as long as possible and try and establish contact with our creators on their world. Then we shall have to see where the fates lead us."

The President tightened his lips. "I understand. You can rest assured that full co-operation will be given you in whatever scheme you may have. Just what have you in mind?"

"I propose to create a mind-explorer. In other words, try and explore this unknown world by means of mind. Since mind does not weaken with distance, there is no reason why we cannot get perfectly lucid views of this other world. We know of two people here—Walt Danning and

Dr. Saunders—who have established direct contact through the medium of dreams. It is possible that that contact still remains because the counterparts will still be in pretty poor shape, maybe injured, or at any rate recovering from shock. I propose we use Walt as the subject, mainly because he is the younger and tough enough to stand anything."

"What do you figure on doing?" Walt asked shortly.

Lance smiled briefly.

"Inducing you to sleep. You will dream, and your dream can be recorded and carefully examined. You can become a free mental explorer of the unknown. If on awakening you get notions of suicide we can master that. Unless actual death happens on that other world, then we're powerless. But that would happen anyway, no matter what we tried to do. See?"

"Kind of," Walt muttered, scratching his head. "O. K. by me, of course, but how do you think you're going to record a dream?"

"BY enlarging on the system used by one Captain Englefield of England in 1930," Lance replied. "He invented a thought-reading device. At the back of the subject's head is a semicircular metallic plate of electrically reflective substance. Thoughts flowing outwards from the brain are reflected back from this plate and trapped in a series of condensors and transformers. Being electric in basis the mental vibrations can be stepped up. Englefield used a system of headphones for listening to thoughts—but that was long ago.

"In the light of present science we can transform those vibrations into visible pictures! The brain will experience sensations, and a specially devised screen will pick them up and remould them scene for scene, just like television. I have Englefield's original designs: I hunted for them the moment I suspected dreams were directly connected with our troubles. The rest is mainly a matter of improvement and construction. Given two weeks and the run of the best laboratories still remaining in the country I think I can get somewhere. If we can contact a brain creator we may even get scientific knowledge enough to save our world. It's worth trying, anyway."

"The whole of the country's resources are open to you, Mr. Dugan," the President said. "I will see to it that staffs are recalled, doubled and trebled where necessary. Whatever you want, if it is within my power, will be obtained. Make Dr. Saunders here your go-between. While you work I will get what co-operation I can from other countries. At least we're safe for a time here in Washington. Our nearest centers of destruction are Cincinnati and Bridgeport."

"While I work here, have another series of laboratories prepared in a less threatened area, sir," Lance said quickly. "If I get hard pressed I can move on and continue there. Now, gentlemen, let us see how we can arrange things."

The scientists moved forward quickly. Automatically, Lance Dugan had become their leader.

IV

LANCE Dugan did not have to work alone. The President's urgent radio appeal to the world for expert scientists to pool their knowledge for the common good of humanity elicited response from all quarters. English, French, and Russian scientists flew immediately from their crumbling countries to lend aid to the solitary man in all Earth's millions who had the unquestionably right idea.

The Russians in particular were valuable. For years they had pursued brain experiments on similar lines to Englefield; their methods of trapping and reproducing thought-waves went a great way toward knitting Lance's fragmentary conceptions into solid, permanent fact.

So while humanity milled and swept uselessly about slowly shattering countries, while yawning craters crept with pitiless steadiness toward Washington from Cincinnati—having already swallowed up most of the states of West Virginia and Ohio—there grew in the laboratories of Washington a curious five-foot high contrivance of rotating spheres, designed to pick up thought-wave impacts; curved receiving plates, electronic tubes of giant size, a projector, and a mineral base screen.

Lance had been too optimistic in allow-

ing two weeks. It was a month before the machine was finished, a testimony to the untiring work of the scientists, engineers, truck drivers and factory men engaged on the job. Lance had a special time set for the experiment—11:30 in the evening—in the hope that Walt would be fairly sleepy from natural causes at that time.

He was. The exertions of the past days had seen to that. But it was essential none the less that he be drugged. Without a murmur he relaxed his powerful body on the receiving table. Surrounded by the numberless, eager scientists Lance adjusted the headplates quickly on the slide rollers, glanced once more over the controls.

Turning, he switched off the lights. Only his capable hands were visible in the subdued spotlights over the control board. A heavy quiet dropped on the laboratory, broken only by two sounds—the deep breathing of Walt and the slowly rising music of the generators in the neighboring power room.

Slowly the giant screen came to life. All eyes studied it; all hearts beat faster at a sudden sense of sweeping motion, of bottomless falling through infinity. Scudding whirlpools of light seemed to leap out of the screen and then sweep to extinction. Mars, Jupiter, Saturn, Uranus. They vomited out of the cosmos toward the screen and were swallowed up. Headlong, ghastly falling.

"The falling dream," Lance murmured. "This time pursued right to its limit. Usually we awake before we can complete it. For the first time we shall perhaps see where the fall really *ends!*"

In the background behind him the astronomical experts kept careful check of the planets revealed on the screen. Only from their charting would it be possible to locate the position of the unknown world.

In several seconds, accomplished with incredible speed—a speed only possible to untrammelled thought—the fall stopped. The view underwent crazy lurchings and resolved suddenly into a view of a switchboard, gigantic and meaningless. But beyond it were other things . . .

A hall of machines, endless machines, stretching away into a distance that was blurred. Nine islands of machinery; titanic balance wheels that spun with soundless power, snaking cables, bridges and networks, ladders and catwalks. Ten gang ways. And over it all a doming roof of transparent material, evidently not glass—unless it was unimaginably tough—for upon it there constantly spattered the fragments of shells and the savage glow of deadly beams of force.

Fascinated, the assembled scientists waited. Lance spoke tensely.

"We're seeing through the eyes of the creator of which Walt is a part. He's controlling that switchboard; that's obvious."

He broke off. The view had changed slightly to encompass a vision of the entire roof. Sweeping over it in droning thousands were cigar-shaped machines identical to the dozen that had visited Earth and left their cargo of horror. That the invaders were one and the same was now beyond dispute. But they were making little headway. It became apparent by degrees that, though parts of this giant hall were shattered from enemy attack, the roof and the majority of the tenants within were still sticking it out.

EARTHLY looking they were, but developed in craniums far beyond all earthly standards. Their heads were big, bald, and revolting.

"Something else is explained," Lance whispered. "Since we were created by them we naturally resembled them physically. Our heads are a fifth the size of theirs, which fits exactly . . ."

"But what do we do?" asked Saunders' impatient voice from the gloom. "How far is this thing getting us? How—"

"I sense a mental contact!"

Saunders broke off astounded. Those last words, uttered with the colorless deliberation of a subject under hypnosis, had come from Walt! Numberless eyes stared at him in the switchboard glow.

"Did he—?" began Voravski, leader of the Russian scientists; then Walt resumed his talking.

"I sense a contact between myself and that distant other being who, by the law of birth and experiment conducted down the ages, now has the fifth of a brain that *I* should have!"

"A contact!" Lance yelped, in the ensuing silence. "That clears the way for us. That being's supersensitive brain must

be aware of our own efforts on Earth here. He senses Walt's fifth-brain mixed up with his own. Walt's brain is in sympathy and he understands his creator's thoughts. Creator by heredity, that is. When this other being was born Walt was born too: same thing applies to everybody. Naturally Walt talks in English because it's the only language he knows. Thought takes no heed of language bar."

"I feel a vague return to the full complement of my brain," Walt's mechanical voice went on. "But there is something between. Now I think I understand! Projected thought! Somehow you of Earth have projected thought across space, have solved the riddle of your kinship with us. That is sheer genius. Can it be that Providence has come to our aid in the time of need? That the experiments the Jurians sought to destroy can even yet save us?"

There was a quality of breathless wonderment, of new born hope, in those words. Again that breathless silence as thoughts flowed and interflowed across the gulf of space.

"If my belief is true that this *is* a mental contact, you may perhaps receive this message through my minor duplicate. There are a hundred scientists here. There were two hundred, but our numbers are now halved by battle. Scores have also died in the city itself. Our city is below the surface of our planet. It means extinction for all of us unless succor comes quickly. The Jurians are our sworn enemies. Many generations ago they came from their planet in the first galaxy and tried unsuccessfully to conquer us in an effort to take over this then very prosperous world. We defeated them—we thought for all time; but news leaked through interplanetary spies that we had parted with a fifth of our brains in order to test experimental reasoning life on a distant world. We hoped later to take over this world—your world—when our planet finally gets too old to support us. Let me make it clear that it was our ancestors who made this experiment; we, always short of a fifth of our rightful brain heritage, have grown up since.

"Hearing of our shortage of brain material, knowing we could not be as brilliant as our ancestors, the new generation of Jurians tried again. But this time, with diabolical cunning, they decided to wipe out our experiments first so we could never regain our natural full brain capacity and so defeat them. And defeat them we could if only we were complete. In this city is a vast hall, locked by our ancestors, inside which is a purely automatic armament system—a terrifying mass of defensive secrets that could wipe the Jurians out of existence if only we had the full knowledge of *how to unlock those doors* and start the machines!

"We presumed the Jurians had destroyed you. Our telescopes revealed a world covered in smoke. Hope at that end seemed dead, but this new mental surge makes me realize otherwise. You can perhaps still save us. On Earth there must be a hundred duplicates of we hundred scientists here—that is if that hundred have escaped earthly disasters. But surely there will be seventy-five percent of the total. If there is, there is one chance! Just one!

"FIND all men who are scientific, gather them together. Later you will be able to identify their kinship with us by their aura numbers—that is, the frequency of electrical radiation their bodies give off. Each human being has a different frequency, like fingerprints. The apparatus is simple to make, and the electrical frequencies exactly duplicate our own in each case. I cannot give you details now; matters are too urgent. All I hope is that you understand me; if so, try and contact me again when you have gathered your possible hundred. . . "

The view on the screen swung from the switchboard as the owner of the brain in question stepped down into the hall. Lance reached out his hand and stopped the experiment. Lights gushed back into being, set the scientists blinking. Simultaneously Walt stirred a little and sat up.

"I—I dreamed about—" he began slowly, but Lance cut him short.

"We know exactly what you dreamed about" and he reeled off a detailed account. Finally he swung back to the scientists. "Well, gentlemen, we know where we stand. We've got to find the hundred if they're alive. They won't be inside in the masses of the people, that is evident; in fact it is probable that most

them are here amongst us. What we have to do is find as many scientific minds as we can, rope them in, then we stand by for further orders. Walt here has become our agent. Once we know how to work this frequency detector and have the list of frequency numbers we shall know where we stand. In the meantime. . . ."

Lance turned quickly and went over to the astronomical experts.

"Well, what'd you find out," he asked shortly. "Where is this unknown world, anyway?"

"Near as we can figure out, Mr. Dugan, it's about twenty million miles beyond the orbit of Pluto—a tenth planet. We've thought for a long time there might be one but have never found anything. We can try again now we have this data. The planet must have a mighty low albedo since we've never sighted it in the 400-incher at Mount Wilson."

"O. K., hop to it and see what you can find out," Lance said briskly. "We've got other work to do, Walt. You're in charge of the flying around here: see that a dozen fast, roomy planes are prepared, with pilots. We're going to start a world-wide toothcombing for men of science. We'll get at them by every possible means—radio, airplane, personal contact, word of mouth. Everything hinges on it. Let's get the wheels moving. Time's precious!"

"And if our distant friend tries to communicate and finds no medium?" Walt asked.

"He won't, dumbbell. He knows when your mind's tuned up with his. Come on, will you?"

TO find the remaining men on earth with scientific minds, get into touch with them by radio or bring them personally to Washington by plane, was a gigantic task, rendered all the more difficult by the almost total collapse of normal existence in every country.

In fact it never could have been done had it not been for the untiring efforts of the heads of different countries, the courage of the intelligence service, the vigilance of police, army and air force, who clung to their appointed posts and accepted orders without question. Never had discipline been so necessary. Here, in a world fast smashing in pieces, as holes ate down into its bowels and released appalling storms over the racked planet, obedience was the only guarantee of safety.

In that week of searching dozens of scientists, amateur and professional, reported to the nearest Evacuation Stations, were picked up and transported back to Washington by the fastest route. Walt Danning had the time of his life tearing back and forth across the world, pitting his aeronautical skill and the strength of his heavy liner against sweeping tempests, dense fogs, and incredible rains. Time and again he descended into cities that were corroded, plague-ridden, filled with starving, struggling thousands who surged for his liner the moment it landed.

Police, shoulder to shoulder, held back the masses with leveled machine guns. If a rush was made they fired, ruthlessly. To destroy the few was the only possible way to save the many. If once the master scientists of the tenth world could get the upper hand they would beyond question have ways and means to impart whereby the earth-rot could be stopped. On that Lance was backing everything. If the master scientists were wiped out, and their people with them, every soul on earth would automatically die also, the world smash in pieces under their corpses. It was grim desperate race the few chosen Earthlings were running. . .

On his journeys back and forth to Washington Walt saw things he could never have deemed possible. Those fizzing holes from Bridgeport to San Francisco had become miles wide and no man knew how deep. The St. Louis and Kansas craters had joined together now, wiping out the State of Missouri in its entirety and replacing it with a volcanic crater that belched forth cotton-woollike masses of yellow fumes. From Northern Wisconsin to Louisiana people floundered and fought and died in this choking fog, aware all the time of the rumble of approaching doom ever following them up.

Between Salt Lake City and San Francisco holes there was a belt of land two miles wide, flanked on each side by impassable smoking gulfs. Shuddering thousands waited on that narrow strip, hour by hour finding it getting smaller. Behind and before their horrified eyes yawned

death in the earth's furious, molten interior.

The same tale could be told of every part of the world. England was doomed, so was Europe and the East. Even the poles had not escaped. The whole world was turning into a smoldering rock sponge, must finally smash in pieces by its very disintegration.

It was against this deadly element of time that Lance had to work with such feverish energy. Washington now was for the most part inundated by the boiling waters of Chesapeake Bay, spouted overland across the Potomacs by the Bridgeport hole's advance into the sea. Fortunately that hole had spread more to the north than the south and Washington still lay out of the main track. Reports showed the destructive line was still 150 miles distant—a matter of perhaps a month before it caught up. But in other directions Massachusetts and Vermont had gone into the forever, sweeping tens of thousands to destruction.

But at last all the scientists had been gathered together. About the same time the astronomers of Mount Wilson completed their final studies, just before the combined Frisco and Salt Lake City holes caught up with them and reduced the whole mountain range to an avalanche of crumbling rock.

Lance stood in the Washington laboratory reading the reports of the men who had died that they might be made. The reports were brief, but to the point.

"Tenth planet positively exists. Revolution 10 hrs. 6 mins. Solar revolution about 400 years. Approximately 3,800,000,000 miles from sun. Small—densely packed. Gravity will be about same as Earth's. Many Plutonian characteristics. Low albedo, probably due to black rock and distance from sun. No air. Orbital inclination of—"

ON that the record tragically ended. Lance turned slowly to the assembled scientists packing the great expanse.

"At least we kr.ow where the tenth world is." he said quietly, after reading the report out. "Small wonder it hasn't been seen before. Don't forget it took the Lowell Observatory astronomers fifteen years to find Pluto. This would have been even more difficult without astronomical mathematics to go on. Well, I think we're ready to see if our friend has anything more to tell. Ready, Walt?"

"And waiting!" He lay down on the experimental table. As before the opiate was administered; he relaxed gently into slumber. The lights dimmed; the screen glowed as the engines came to life. The ultimate view was different this time. It seemed to be from a considerable height, portrayed a city which had no doubt once been wrought with delightful artistry. Now most of it lay in ruins, its towers splintered, its streets littered with debris. Far above, now *inside* the transparent roof, were dozens of attacking ships.

"So they got in," Lance breathed in a bitter voice. "Wonder how they did it—"

Walt spoke suddenly.

"I sense mental contact again. That satisfies me that you got the last communication. Today I am in my own apartment looking over the city that is slowly being conquered unless you can help us. The Jurians got through one of the valve-shafts, which we have now closed. It was an unfortunate mistake for us to make. However, I am hoping you have gathered together some of your scientific minds in the hope that among them will be the hundred we need. Here are the frequencies they must register in order to tally with ours.

Instantly adding machines began to click in the gloom.

"As to the detector itself you can construct it within a few hours. It is merely a voltmeter of extreme sensitivity, registering the exact aura of everybody on whom it is tested. When it registers the tally numbers you have one of the hundred we need. Here are the construction details."

The army of technicians scribbled under their spotlights. The others stood watching the attack and defense going on in that distant world.

"I may not be able to speak again. We are lining up for our last great stand against these invaders. Listen carefully. When you have found as many as possible of the hundred construct a space machine and bring them here. In appearance it will resemble the gray ships you have seen. For power you will use rockets. There are other ways, but too involved for

explanation here. You have hestitated so far to use rockets for space travel, not knowing what results you might get. If you follow out these directions implicitly you will have no trouble reaching us. For fuel you will use your most powerful explosive: atomic force is not within your province. Once you get here, radio a signal. One of us will pick it up and give further orders. You *must* get here! If only one of us can get a full brain these invaders are finished. Only a full brain can unlock the doors of our sealed arsenal. Now, here are the details of space travel, and some useful weapons."

For an hour and a half the details followed, were taken down by voice recorders word for word. The last words had desperation in them.

"The rest is your task! You must come, if a mighty science is to be saved from the ruthless domination of an alien foe! *Hurry!*"

With that Walt ceased speaking. Lance looked at him in the resumed lights, glanced at the scientists. He gave a heavy sigh.

"If only we were able to ask questions," he muttered. "We might have found a way to stop our crumbling world. As it is, I can only forsee the survival of perhaps a hundred or so on another world. Well— There it is. The peoples of Earth must never know, gentlemen."

HE became silent for a moment, grim faced, then went on, "For tonight we rest. We have got to do so: we have worked at mind-numbing speed recently. Tomorrow we will follow out these directions. Engineers must get to work immediately, what remaining metal foundries still exist must be pressed into service."

"Just what excuse will you make to the world?" asked Saunders quietly. "We're on a doomed planet, Lance—that's perfectly clear now. At the end of our work only a few of us will take off to this tenth world. How do we excuse ourselves? What promise do we give in order to get help?"

Lance set his jaw. "We promise those who work for us that they are going to a better land," he answered grimly.

"Deception—plain and simple!" Saunders said slowly.

"I know it. The better land is death—at least it can't be worse than life is at present. They'll think we mean that *we* are taking them to a better land."

"I don't like it," Walt growled, sitting up. "It's barefaced treachery, Lance."

He nodded slowly. "I know it is—but look at it my way. If we do not go into space, what happens? Our world smashes in pieces, every soul will die and us included. That distant world will be ruled by an infinitely merciless race. In the far future other planets will have them to reckon with. Now the other way. We cannot save the rest of humanity anyway, but if *we* go we can still perhaps save the tenth planet scientists, preserve their ideals. They are our creators, and for that we owe them a certain debt. Take your choice, gentlemen; the issue's too mighty for one man's shoulders."

There was a long silence. The way out was plain.

"We'll go," said Saunders quietly. "Guess you're right at that!"

V

WHILE the Washington laboratory technicians went to work the next day to build the aura-detector, Lance went into conference with the President. Out of that came a call throughout America to throw open factories for the sole purpose of casting the moulds for one mighty space machine. Engineers, promised a better land in return for their services, came into action to follow out the plans. Areas still escaping the devouring holes were assigned and surrounded by police and army reserves to keep away the screaming multitudes, whose sole object now, knowing all of them could not be accommodated, was to destroy the chances of survival for the luckier ones. It was human nature, understandable, but it was met with merciless opposition.

The construction of that space ship and the arms for it could well be described in blood instead of ink. It brought out the most bestial elements in man as he fought a losing battle in a world gone mad. The red flares of titanic blast furnaces belched into the drifting, acrid fogs; great tractor lorries carrying the castings rumbled over an eternally quaking countryside, lorries mounted with armed guards whose job it

was to defeat the wild, bearded incendiaries lurking in the fields and hedges.

In Washington's mighty engineering sheds themselves the cast moulds were assembled amidst a glare of floodlight that shone through the darkness now almost eternally present. The whole world was wrapped in confusion, horror, destruction.

In the arament factories men and women worked ceaselessly on the production of weapons such as earth had never known before. They utilized basic forces which could only be tapped in free space, were designed to make use of the destructive radiations—the most dominant being cosmic—forever networking the void. On earth they were useless because of Earth's atmosphere.

And the space ship grew by degrees, five hundred feet long, with enough accommodation for the now chosen hundred and some few promised ones, including the President, Lance himself, and Saunders, found they had twins among the hundred scientists of the tenth planet. Not that it was any surprise to them. As they had expected, most of the hundred had been found among the scientists who had arrived at the outset of the adventure.

Walt, his twinship already determined, had elected to become pilot of the machine, spent his time learning the intricacies of the master control-board. He made numberless journeys to the sheds where the monster was being prepared, saw it finally reach completion.

IT was toward the close of this hurricane of activity which had its center in Washington that the first cataclysmic disasters reeled across the world, shook the crumbling planet to its depths. Several of the European craters, now miles wide, had bored clean through the earth to neighboring holes on the opposite side of the world. The outcome was incredible—overwhelming in its vastness.

Monstrous portions of the eastern world roared with a million thunders into the transplanetary bore, sweeping countless millions to instant death. Unguessable square miles of land flashed into nothing or tore off into space. A globe, pock marked and scarred, filled with scurrying myriads of antlike humans, was deprived of a quarter of its mass. It rocked and swung in the grip of earthquakes; tidal waves swamped inwards. To the west of America the Pacific poured inwards as far as the St. Louis hole, and there, Providentially, the hole stopped it by canceling it out. Washington still stood, a somewhat shaken, fissured city, one of the last metropolises of a dying world.

It was no longer safe to delay. Lance gave the immediate order for the spaceship to be tenanted by the chosen ones. That demanded a trip through flood, fire, and falling buildings. It demanded escape from maddened revoluntionaries; it was necessary to run the gauntlet of steel and fists. But it was done.

By degrees the hundred and fifty, scientists and preferred ones, entered the ship. The massive valves were relentlessly closed upon the surging, screaming myriads in the yellow fog outside. Faces mouthed entreaties for assistance, fists hammered futilely on bellying curves of invincible metal.

"It's tough, betraying them like this," Lance muttered, staring outside. For a long moment he hesitated, then his face set like a rock. "But we've got to do it!"

He glanced round on the enormous length of ship as the assembly took up their various positions, Walter at the far end and in the seat before the master control board.

"O.K.", Lance said quietly. "Let her go!"

Instantly the engines roared, hurling their power to the mammoth rocket tubes. The ship quivered, hung in breathless motionlessness for one pent second, then with an ever-increasing whining shriek it tore upwards in a vast, spark-encrusted arc. Up through the yellow, scudding rack—up with a velocity that held the last men of earth rooted to the metal floor.

In fifteen minutes they had shot through the last vestige of atmosphere, gazed back in morose silence on a smoking, plumed cinder that had been a planet. That in a few hours would be a planet no more.

BUT within the first three days a new, grim problem arose. By degrees, first in ones, then in twos and threes, death stalked through the space ship! Sometimes it happened by suicide after dreaming; at others one of the picked scientists just dropped dead from apparent heart-failure.

Their bodies were promptly cremated in the rocket tubes' inspection chambers, incinerated instantly.

Lance became increasingly worried. By the time the vessel had passed the orbit of Jupiter the numbers in the ship were reduced to sixty-five!

"It is perfectly obvious what is happening," he said, gazing round on the taut, grave faces. "Any of us may die instantly when our master twin is destroyed on the tenth planet. It is also obvious that our masters are getting the worst of it. The best scientists on Planet Ten are being exterminated. We have that danger of extermination to face also—but if only *one* of us gets through it can save the situation. One scientist, we were told through Walt, can unlock the doors of that vast, sealed automatic armament section. For the sake of that world's science *one must finish the course!* I am telling you this because—because each of us must realize the issues at stake."

Heads nooded in silent agreement. Lance turned to Walt.

"Increase the speed to absolute maximum, Walt. If the acceleration plays hell with us we'll have to stand it. Get going!"

Walt nodded briefly. Thereafter the vest ship tore with crushing, numbing speed through the deeps, drawing ever nearer and nearer the distant outposts of the solar system—but by the time Pluto's orbit had finally been passed another twenty five were ashes in the rocket chambers. The remainder waited, grim-faced, realizing that now must come the final struggle.

They worked with a total disregard for the fate hovering over them, carefully checked with the position of the tenth planet, swung the ship toward it, at last sighted it as a densely dark world far beyond Pluto. And the nearer they came to it, their speed now reduced, the more they became aware of multitudes of flashing shapes swarming around the dark surface.

Through the telescopes the planet was clearly pockmarked with gleaming domes, presumably the protection against the airless exterior; and the darting shapes were undoubtedly the invaders.

"This," said Lance tensely, as they came within a million miles, "is where we really go to town. All set on those weapons, boys?"

The scientists nodded, each at his post, each silently marveling at the mechanisms which could absorb and retransmit the energies of the void for such destructive purposes.

Lance turned aside and switched on the radio. To his relief there was an immediate answering call.

"Within a million miles," he stated briefly. "What now?"

"From your present position you will see five protective domes. The fifth one is marked with a cross. At the moment it is shielded by force energy to deflect the invaders. Below the fifth dome there are no people: what few there are left of us are collected in the first hall. Here is what you must do—drive through the fifth dome! We will stop the force shield as we see you approach: drive straight on! You will have a fifteen hundred foot drop below the dome, enough to enable you to break your fall. The instant you are through the force will resume over the gap. We dare not swing aside the valves: we did that before and some invaders got through . . . Hurry!"

"Right!" Lance switched off and glanced round keenly. "O.K. Walt, let's go!"

WALT set his teeth, sighted the fifth crossed dome directly in line with the forward window, then eased in the power once more. Like a bolt out of infinity the ship dived downwards. But it was not so easy as all that. Several of the invaders caught sight of the vessel, swung round from their harrying attacks. Instantly the void was ablaze with nameless forces. Rays of unknown quantity crisscrossed the path down which the machine was hurtling.

"Fire!" Lance bellowed frantically, and simultaneously the weapons lined round the ship's walls blazed forth their own mysterious energies. What they were the earth men did not kow, but they realized that without them they could never have made it. Though they did not make any effect on the invaders' ships themselves, they at least hetrodyned their powers.

For a moment or two in that breathless million-mile drop the ship had the advantage, but the task of sheer accuracy was too exacting. Three invader beams seared free of neutralization, sliced against the

PS's Feature Flash

FLASHING you the highlights on the men you've met in the preceding pages—those cosmic-minded writers and illustrators who help to nourish Planet Stories.

Concerning Mr. Ayre—

WE feel pretty certain that Thornton Ayre's provocative story, "Twilight of the Tenth World," will fascinate you as much as it did us. Since reading it, our brains have been toying with cosmic possibilities far beyond any possible editorial scope. We've been doing our work in an aureate haze of tempting telepathic possibilities. Thought transference, we find (Mr. Ayre to the contrary) does not get out magazines. So, a bit wistfully, perhaps, we've thrown in the sponge and pass the problem on to you.

All of which is merely a leading up to the following letter from Mr. Ayre concerning the source of his unusual plot.

"I OWE this entire plot to an article in a leading English daily paper of a year ago, headed *Sixth Sense Tested!* I have tried for a long time to work out something both possible and adventurous to fit the theory expounded in the article—and "Twilight of the Tenth World" is the result.

"After all, I'm no new explorer into dreams: men have tried to get to the root of them for ages. I've simply tried to work out another way, which—though I say it myself—I don't consider to be so very unlikely. The hardest part about this story was knitting up the essentially scientific statements of the theory to the fast pace I tried to maintain throughout the yarn itself. I hope I have managed it without any undue sagging. . . .

"The conception of polarizing gravity is, I hope, one that has the rudiments of possibility. If light can be polarized—and we certainly know it can—why not gravity? And if such a thing were to come about I think we'd find ourselves facing something pretty similar to what I've depicted in the story.

vessel with shattering impact. The walls turned white hot, then cooled again, but the damage was done. The infinite cold fissured the metal. Vital air began to escape in a singing tide.

"Quick! Space suits!" Lance screamed.

He foundered across to the area where they were kept, only to fall back with a gasping scream as the rays got through again. As though slashed with a razor the ship sliced clean in two! For one wild instant Lance was aware of himself open to the void in half a ship, with the stunned scientists around him. Far away in the opposite half of the ship, hurtling with terrific speed, was Walt—alone.

Lance knew no more than that. The universe was cold, dark—void.

Walt twisted his head around as he sensed the sudden tentacles of space bite through the vanishing air. For a breathless second he stared at the half ship in which he was marooned, back at the black planet and crossed dome hurtling to meet him. Something, a remembrance, blazed through his brain.

"One must finish the course!"

Relentless agony warped his muscles, coiled up his lungs. He was a dying, tortured wreck as he clung to the switches, staring through dimming eyes at that widening cross. Blood suddenly gushed from his nose. With blinding impact he tore toward the dome, fell helpless over the switches that fired the last charge into the forward tubes to break the fall. His senses reeled and rebounded amidst rioting, catastrophic noise.

TO Walt the events that followed were little better than the figments of a weird dream. In half conscious fashion he was aware of robots carrying him, of his arrival in a titanic surgery lit with blazing lights. Things happened to his head that he could not figure out—but through it all one clear realization crept to him. He was able to look on his own body! A wrecked, shattered ruin of a body that was irrevocably dead.

Thereafter things changed. He knew he went to doors of stupendous size, sat for hours before complex controls, unraveling intricate combinations and interlocking devices—until at last the doors swung wide. What happened then he was none too sure;

but he had an idea of seeing countless thousands of tiny space ships buzzing like hornets through the underground city's air-locks, of seeing them discharge such staggering forces of war upon the invaders that the invaders' ships simply crumbled and splintered and mushroomed into nothing under the onslaught.

Through days, through weeks, Walt knitted his sensations together. He was aware of other scientists, big headed, like the ones he had seen in his dreams. He saw thousands of people at work repairing the damage of the invasion. Everybody seemed to pay him great respect. Gradually he crept out of his detached sense into full understanding. His brain leapt the gaps.

At last it was crystal clear! He had, automatically, become the master of the entire race. The former master was dead: as the only man with intelligence enough to unlock the doors of the arsenal his supreme power was unchallenged. Of course! He had his full brain now; the fifth section that had been owned by Walt Danning had been grafted onto his own. The body of Walt Danning had been smashed to atoms in that final heroic dive, but this brain had escaped immediate injury, had been removed in the nick of time.

And now? Now he understood. Strange how he forgot Walt Danning. Now he was conscious of only being the supremely brilliant master of this already brilliant race. Now that he had a complete brain he could provide ways and means for the others to gain their full brain power too. Synthesis, forces of life— He toyed with ideas that only a complete brain could toy with.

Lance Dugan, Saunders, and the others? They were the last of the experiment—that ghastly, mighty experiment in life that had come to an end. The servants had saved the masters.

He *was* the Master! He turned slowly and gazed on the activity. Mighty ideas pounded again through his vast dome case, and with them a certain conclusion. Never again must a scientist part with a vital portion of his brain or body. That way lay destruction, and because of it a world of struggling bipeds had been wiped out.

Never again! *He,* especially, must stay as he was—complete. The supreme Master!

"Maybe some readers will be surprised to find that not a single feminine character appears in the yarn—which is, I suppose, something of a departure after the murky ladies who have pervaded my last few novelettes. Reason? To get a fresh angle; to see if it were possible to change the system and achieve the same effects. Don't imagine I'm going to drop my mystery females entirely. No: I don't think a story is properly balanced without them—a story relying entirely on character, that is. This one does not rely on that, but on new theories and action.

"That, for this time, covers what little I have to say of the background of 'Twilight of the Tenth World.' I hope you will enjoy it."

THORNTON AYRE,
Lancs, England.

Addenda—

BECAUSE of lack of space in the last issue, we were unable to publish the complete list of fanmags that Tom Wright so kindly sent us. We print herewith the remainder. As Mr. Wright pointed out in his letter to us, these publications are not amateur, and stf. fans should not expect to receive them free of charge.

FANTASY-NEWS @ 3 for 10¢ from 31-81 41st St., Long Island City, N. Y.

FANTASY FICTIONEER @ 10¢ from Sully Roberds, 922 West Division St., Normal, Ill. The official organ of the Illini Fantasy Fictioneers. Mimeographed.

PLUTO @ 10¢ from L. S. & H. Club, Decker, Ind. Humor and drawings. Mimeographed.

GOLDEN ATOM @ 10¢ from Larry B. Farsaci, 48 Lewis St., Rochester, N. Y. Poetry and collectors' articles. Mimeographed.

PSFS NEWS @ 5¢ from Jack Agnew and Robert A. Madle, 2308 E. Belgrade St., Philadelphia, Penna. Local news. Mimeographed.

THE SCIENTAL @ 10¢ from Bob Studley, 519 W. 134th St., New York City. General fan material. Mimeographed.

YEARBOOK OF WEIRD, SCIENCE AND FANTASY FICTION @ 20¢ from Bob Tucker, Box 260, Bloomington, Ill. Gives complete data on every stf. story published last year. Mimeographed.



THE VIZIGRAPH

THERE'S not much doubt about it, fans. You picked the winners of original illustrations from the Fall issue. They're Bob Tucker with a score of 60, Charles Hidley with a score of 42 and Isaac Asenion with a score of 9. (These scores aren't based on letters received—just our own cock-eyed system.) Now here's a flock of new offerings to the altar. Hop on 'em, stf. fans, and let us know your choices. Remember, the three best get original illustrations from this issue.

MERELY THE MOST RAPIDLY IMPROVING MAGAZINE IN AMERICA . . .

3136 Q St.
Lincoln, Nebr.

DEAR EDITOR:

All those hard words which I have applied to PS in the past are hereby declared null and void! I have just finished reading the Fall issue of the most rapidly improving mag in America. You can't go wrong with such stories as "The Ultimate Salient," decidedly one of the best *by* one of the best, Nelson S. Bond; "Quest on Io," a very entertaining tale, by an author who seems able to write stories of all grades, from the very worst, to the very best; "The Planet That Time Forgot," the best story on this particular theme since Dr. Breuer's, back in "the good(?) old days"; "Hermit of Saturn's Ring," with some neat characterization; and,—well, why continue? Selwyn's adventure suited me least, but it is a good adventure yarn of its type. If you keep on improving at the present rate—but there MUST be a limit somewhere! Anyway, you are going to get suggestions that you go bi-monthly; and, on the basis of this issue, I think they will be justified.

For the prize letters, I nominate Bob Tucker's for first, Charles Hidley's, for second, and Izaac Asim—oops! *Asenion's*, for third. But, if you want to turn them around, it is Okay with me. The latter has voiced my favorite plea, "Down with 'slop' in science-fiction!" Hidley calls *me* a "constant groaner"; but several letters in *this* issue "groan" about the same items; and Tucker sets us all straight on that strange but interesting mutant, the non-story-reading collector! All in all, the enlarged "Visigraph" is greatly appreciated.

The cover is greatly improved, with the fully-clothed Redhead replacing the "over-exposed blonde" of previous issues, although the scene presented must have been taken from s story by the artist, since it is not taken from any tale in the mag.

Paul has turned out one of his best drawings of the year for Bond's fine story. Rosenthal and Lynch also do *very* well. Morey has done some good work, at times, but he didn't do it for Cummings' story.

The plea for smooth edges at this time is a little premature; but, with the increased circulation which this issue is SURE to bring, it may be justified shortly. Here's hoping!

Yours sincerely,
D. B. THOMPSON.

EDITOR'S NOTE: Go on Mr. Thompson! I bet you tell that to all the editors.

LAURELS FOR LYNCH

General Delivery,
Fort B. Harrison,
Indiana.

DEAR EDITOR:

A few crits and back-slapping: The flying belt on the cover is impractical because the wearer could stick an arm or leg into the rocket stream and then be minus a leg or an arm. Why does he need thick clothing and an oxygen helmet when the lady needs neither and seems to be quite contented. The color contrast was very good but I believe the covers should be more scientific.

In Rosenthal's picture, "Quest on Io," the woman's facial expression bothers me. Will Rosenthal kindly tell me whether it is love, anger, fear, etc. The picture was hazy except for the symmetrical lines of the airship.

Don Lynch is your best. In his picture of "Buccaneer of the Star Seas" we find the best as represented by the ship. The ship itself is a wonder of scientific imagination. I ask for more of him and less of Rosenthal's present work. Don's small sketch of Carlyle and the friar rate generous applause. The picture makes them live more vividly thru-out the story. He has another wonderful picture of ships of the future in "Hermit of Saturn's Rings." The sketch of Jasper was even better than that of Carlyle and the friar. His picture of "Venus Has Green Eyes" was a detriment to his ability. I think we should have his ships in color on the cover or framed in the book by simple black lines.

The stories were average and the pictures did help them up a lot. Top ranking was "Hermit of Saturn's Rings" and "The Ultimate Salient" running a close second.

If some of the science rag-chewers wish to drop me a line I will be thankful.

A CRANK,
JOE FITZGERALD.

EDITOR'S NOTE: Even Rosenthal has to admit that the "Quest on Io's" lady has her emotions mixed. The main trouble though is adenoids.

WANTED—ONE ORANGE-EYED ZWILNIK

140-92 Burden Crescent,
Jamaica, N. Y.

DEAR EDITOR:

When I first bought PS I thought it was another of those low-grade s-f mags. that seem to spring up over night (curiously, this type either disappears again almost as quickly or improves). But after perusing it I found the grade of stories were high. And so another reader joined the happy little fold.

But there is one squawk I'll have to make. For FOUR issues the hero and heroine have cavorted on the cover, blowing up rocket ships, etc. Please, dear Editor, do SOMETHING to relieve the monotony—even the picture of an orange-eyed zwilnik from the 5th planet of Alpha Centauri would be better. Seriously though, I would like to have Paul do a cover *illustrating a story*—preferably machinery at which he excels. To complete the art survey: the interior drawings are very good, the ones by Paul and Lynch being the best.

Now for the stories. "The Ultimate Salient" is, of course, the best—and contains a rather unique idea. It also paints a happy picture of the future of democracy? The rest of the stories are fair, though not quite up to the level of the Summer issue. This is probably just a lull before PS begins to improve again. The two departments are improving—and the best letters in the Vizigraph are Tucker, Hidley, and Hurter in that order.

Suggestion: why not raise price to quarter and trim edges?

WILLIAM STOY.

EDITOR'S NOTE: Wait till your eye lights on the next cover job.

WISHES COME TRUE

2541 Aqueduct Ave.,
New York, New York.

DEAR EDITOR:

I wish to first thank you most sincerely for printing my letter, thereby giving me a chance—even though very slight with Tucker, Thompson and Azimov in the same issue—of obtaining one of those very beautiful illustrations in the Fall publication. After you are so good to present it, it depends on me to win it and I am praying my best. I'll have the gall to give my preferences, those being: 1 Paul, 2 Lynch (Hermit of Saturn's Ring) and 3 Morey (Revolt in the Ice Empire). Enough of wishful thinking.

The Drake (?) cover did not accurately depict any scene from the Cummings' novel and had a poor style, but of the nine stf magazine covers presented in the month of July it copped fifth place and had four of the biggest "name" mags trailing it. Of the illustrations, Paul's effort easily led the field with the new-comer, Don Lynch, doing swell stuff in black, a style both off the general types and also pleasing to the eye. Rosenthal is refreshing hut it takes some time to cultivate any keen liking for his work. I would prefer him in weird channels, I think. Please don't listen to readers with complaints against Morey, an artist with such a unique style that I rate him amongst my favorites despite his faults. Give him machines and ships and cities to do and his real worth will soon become apparent. I'd like to see cover work by Paul and Morey and the others, and am sorry that you prefer one-artist covers.

It was delightful to read another link in Bond's series that have now appeared in three different mags to date. The adventures of O'Shea was the best of the four and the one complaint is its brevity. Ed Earl's Repp's weird "Buccaneer" is second on this list, with *Domain of Zero* such a close third it was almost a tie.

It amazes me the way Neil R. Jones has been held down for so many years. His recent flood of work in this field has hardly been mediocre, and the No. 4 Hermit yarn is another proof

that his is a good thing to have. Lynch is a fine artist, but should beware of comic-strip effects and should round out his work to a three-dimensional perspective. This latter idea was completely lost in the No. 2 story drawing.

The Planet that Time Forgot has an old plot, but because of Wollheim's novel development and construction it became a plot with a new angle worthy of a second perusal and also fine for fifth place. I'm sorry that Cummings' cover story gets only the No. 6 spot, but the plot was so old and the action trite and overdone to such a boring state, that this had to sink down. Morey good here.

I have *Quest on Io* down for seventh place, but on looking over this short I almost feel it should be in fifth. Oh, well, the talking animal there isn't new so I guess it'll stay there. Last is the Selwyn short, merely human-interest stuff, but with such a grand climactic punch that it deserves more.

To be frank, the Fall issue was not as good as the Summer one, but perhaps we can blame that to the heat. So sorry you had but one full-page, framed pic this issue, but will hope for them next time. I dislike "spreads," but if they are neatly done I suppose complaint is unfair. I'd gladly pay a higher price for trimmed edges. Your book is so aristocratic with the sane printing and few advertisements that TE would add much toward a bigger seller. You cannot know what a delight it is to miss the Pepsi-Cola cops, the Sen-Sen horned germs and the Burma stubbles, not to mention "I Talked with God (Yes, Actually and Literally)," and though I realize that advertisements are a mag's life blood, I hope you shan't have to resort to them in the future.

Keep away from sloppy mush, an item that was very prevalent this time, with three or four yarns crawling with it. Better than the first two issues in that much of it has been deleted.

I guess I didn't win that Fall Paul after all, and I realize this longwinded bunch of zero won't have a chance. Maybe Spring issue, hunh?

Thanks,

CHARLES HIDLEY.

EDITOR'S NOTE: Why wait for Spring, Mr. Hidley? On the strength of your previous letter you're due for either the Lynch or the Morey as soon as we hear from Bob Tucker, concerning his first choice.

ONE, TWO, THREE

Mountain Home, Idaho.

DEAR EDITOR:

The three best letters in Fall issue of Planet Stories are, in my opinion:

No. 1—Charles Hidley
" 2—Bob Tucker
" 3—Isaac Asenion

EMRYS EVANS.

BOTTLED IN BOND

Lagro, Indiana.

DEAR EDITOR:

A short, short recipe for top-notch stories—A several thousand-word batter well mixed by one Nelson S. Bond, add frosting by Paul and bake in "Planet Stories."

For results of said recipe consult "Planet Stories" for Fall 1940, and I might add that Paul's frosting on that job is one of the best he has ever done, and Bond's batter is the best he has stirred up yet.

Give the illus. in the Fall issue to Charley Hidley, Tucker, and Fred Hurter in the order named.

One thing more, change your covers and give us some space scenes such as a battle between two or more Space vessels or intricate machines, etc., in fact almost anything, but *Puh-lease* no more hero rescues heroine from villain type you have been featuring. And now to swipe a quotation from Lowell Thomas and say,

So long until next issue,

ROBERT STOKER.

NOT A BAD IDEA—ABOUT OSCAR

312 East Elm Street,
Scranton, Pennsylvania,

DEAR EDITOR:

I have two reasons for writing this letter; one is to try and win an original Paul or Lynch drawing, and the second is to ask you to announce somewhere in the next issue of PLANET STORIES that I should like to communicate with all readers in Scranton and the vicinity who are interested in forming a local fan club. All interested should write me care of the above address or telephone 2-2554.

Now I come to the Fall issue of *Planet Stories*. The best story in the issue was Wollheim's "The Planet that Time Forgot." The author's explanation of the different time-rate between the two worlds seemed very plausible. Wollheim seems to be an up-and-coming author.

"Hermit of Saturn's Ring," by Neil R. Jones, is a close second to Wollheim's tale. Perhaps, in fact, there was no incredible theory in the story. There also was not much action, but Jones' descriptions of all that Jasper did, saw and encountered were very interesting. Even though I perceived the escape of the white monster, and even though the characterization was handled poorly in some parts, I still say the story was interesting enough to be in second place.

A fair third place is filled by Bond's "The Ultimate Salient." This is what might be called a *science* fiction story, but the fact that it is, in part, a war tale spoiled it a little. Too much war is sneaking into stf. There seems to be a slight error in the story. In the story proper it is made clear that one Eben Clinton is passing on the story. Therefore, in the note in italics on page eighteen his initials and not Bond's should appear. Right or wrong?

Williams' story, "Quest on Io," presents a new character, of which I would like to see more. None other than Oscar, the Ganymedian honey bear, who provided some humor for me. You ought to try and get some humorous stories, and also more with Oscar in the cast.

Repp's new twist to the immortal tale "Buccaneer of the Star Seas" puts that story in fifth place. The other three stories are fair.

The best artists presented in the issue are Paul, Lynch, Morey, and Rosenthal. Your two new artists are a lot better than some new artists that other stf mags have produced. Who did the cover? It is an admirable piece of work.

Tucker, Hidley, and Thompson, in the order named, should receive the originals. I miss your editorial comments on the letters. A few things irritate me. If you are going to put a date on one letter, date the others also. Either put the

names and addresses before or after all letters. The fourth issue is the only issue of PS that I have read, and I am not sorry I read it. It has induced me to *find* time to read the previous issues. Keep future issues as the fourth one was and you will have me for a steady reader.

Plantascientomically yours,

RAJOCZ.

ED.'s NOTE:Concerning page 18—you're right. We and Bond were very, very wrong.

PAGING MISS MOROJO—

70 Leuty Ave.,
Toronto, Ont.

DEAR EDITOR:

I purchased the first issue of PLANET STORIES because I am in the habit of buying first issues of sll science fiction magazines. Like most, this first issue did not come up to expectations, but because of its promise of improvement I was reluctant to ignore it. Now I am glad I did not. The advent of Paul and Morey as illustrators raised it the first step, and the great improvement in stories by recognized leaders brings it to the elevation of any publication in this field. When one sees Paul in a publication, one realizes the editor is versed in science fiction tradition and is aware of its unique attraction; not merely s western magazine gone futuristic.

I will not attempt to rate the stories individually. Suffice it to say the trend is toward the best. Paul's illustration for "The Ultimate Salient" is very well done. The humans are secondary to the machine, in which Frank R. excels. Rosenthal is also quite good. He has a knack for alien beings; Oscar and the "creatures" of Domain of Zero. As he will not be with you long, by all means utilize his skill to the utmost while you can.

I usually have a motive for any letter I write to a science fiction magazine. In this case it is the hope of an original drawing, preferably by Psul, after Paul a good Morey. I have quite a stf. collection but am lacking an original Paul. An unheard of situation for any avid fan to be in.

To weaken competition for myself I waited till some of the number one fans voiced their thoughts. 4S J., number one fan by popular vote, and Bob Tucker, number one fan in Bob Tucker's opinion, have now both aired their views. Now I have only to worry about Morojo. By the way, what exactly is her true identity. I have heard that Morojo is an Esperanto word.

The covers are still too gaudy and comic, but at least in this issue the earthlings have moved from the ship's door. For fan's sake use more dignified cover illustrations. For instance a sliver-gray rocket on a dark, star-studded background, a party of humans in futuristic dress, the lounge of a space liner or a planetary view.

I heartily agree with Mr. Asenion concerning cheap blood-and-thunder and heroes of the type of Superman, Garbageman, etc. The stories might also be improved if, before passing out a crisp checque for a Planet Story, you considered a very true statement concerning science fiction once made by H. G. Welles. Even better, frame a copy and place it on your desk where it may leer at you at all times. Statement: "When this kind of thing is attempted by clumsy writers who do not understand its elementary principles, nothing could be conceived more silly and extravagant."

I am an amateur artist myself, and I imagine there are quite a few more in the fan ranks. I would appreciate a department which described Incidents of coming stories, for which the amateur artist could send in entries. They could then appear in the corresponding story in addition to the regular artist's work. Accurate directiona would be necessary for the guidance of the entrants. For example, one couldn't have three Jovian Lionosaurs devouring a planet scout when it distinctly said in the story, "two and one-half Jovian Lionosaurs devouring a large red fungus."

My choice for the most interesting letter in the fall issue is Bob Tucker. Then Mr. Asenion and Charles Hidley. Now closing with high hopes, I remain

Yours stfictionally,
S. C. GOLDSMITH.

MORE OF THESE HONEYS!

Imperial Bank of Canada,
Cobalt, Ont.

DEAR EDITOR:

Just a word about your No. 4 issue of PLANET regarding the cover. The faces of bodies of the foremost people are excellently drawn. But the background! Oof— The people near the ship (I take it they are to be people) look like immense monstrosities or fat gorillas. They are far from being proportionate to a man. Another odd-looking feature is the 3 men up in the air being blown out of the Rocket Ship. Somehow it doesn't hit the right spot when you look at it. (Now for another drawing.)

About the one on page No. 2. It is an excellently detailed drawing by Paul, but it would have to be spoiled by the "continued on the next page" idea. That white space of about 1½ inches spoils it considerably. Think we can ever have the *keen* drawings like that done with yellow or blue ink?

The drawing on page No. 33 is quite good as a relief effect picture.

Drawings on pages No. 41 and 57 are excellent. The diagram accompanying "The Planet That Time Forgot" on page No. 70 strikes one queerly as you note the tallness of the two persons in the background. Diagram on page No. 81 is novel and new in style, therefore quite pleasing.

Ah!—now we come to the one—by Don Lynch, on page No. 92. It is splendid. The black relief idea is excellent, giving one a good idea of the lighting that the planet receives in the same breath. We want more of these honeys!

Drawing on page No. 101 has excellent perspective, but the lady in foreground ruins it quite a bit by the clawlike hand and style of headdress.

Please accept my lowly criticisms with good will. I mean no harm! The stories are excellent and I often find the shortest ones are best, so how about lengthening the short?

Hoping to see this in the "Vizigraph," I remain,

Yours truly,
PAUL I. CUTTLE.

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Or will a tiny, obscure Pacific Coast outfit trip the tall Irish in the season's opener?



HOW about CORNELL—can the Big Red keep it up, or will OHIO STATE derail that winning streak? In the broad Southwest, where champions never repeat, rumor has it that the sure-footed Aggies are about to blast a hallowed precedent. And on the Coast, what is happening to the diploma-wrecked Trojans—is the U.S.C. colossus losing its Rose Bowl grip?

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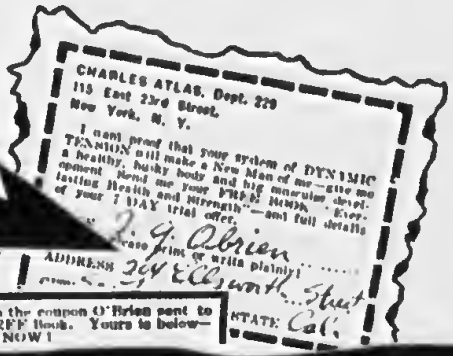
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Let Me Prove I Can Make You a New Man

Would you like to have a handsome build — greater physical development — a strong, muscular body? Then listen to this:

I, myself, was once a skinny weakling of 97 lbs. I didn't know what real health or strength were. I was afraid to fight, ashamed to be seen in a swimming suit.

Then I discovered the secret that changed me into "The World's Most Perfectly Developed Man," the title I won **twice** and have held **ever since,** against all comers. My secret is **Dynamic Tension.** It is a **natural** method. Its purpose is not only to give you the powerful, rippling muscles you'd like to see in your own mirror, but also for those whose systems are sluggish from lack of proper exercise to help them tone up their entire body, inside and out.

Accept My 7-Day Trial Offer

Do you want a better build? Are you dissatisfied with your present physical development? Will I ask you for a 7-DAY TRIAL. Just one week! In even that short time you will notice your chest harden and filling out with solid muscle. Try the 7-Day Trial will cost you nothing. Surely this is proof enough that by continuing with my "Dynamic Tension" method I will make you a **New Man** give you bodily power and drive, and put you in magnificent physical condition which wins you the envy and respect of everyone.

FREE BOOK On Dynamic Tension

Let me show you the results produced for other men. I'll send you FREE my famous book, **"Everlasting Health and Strength."** It shows actual photos. Write your name and address carefully on coupon. Mail to me personally **today.** I'll rush your free copy to you AT ONCE! Charles Atlas, Dept. 15011, 115 East 23rd Street, New York, N. Y.



SILVER CUP BEING GIVEN AWAY This cup 14 in. high, goes to pupil who makes the greatest physical improvement in next 3 mos.

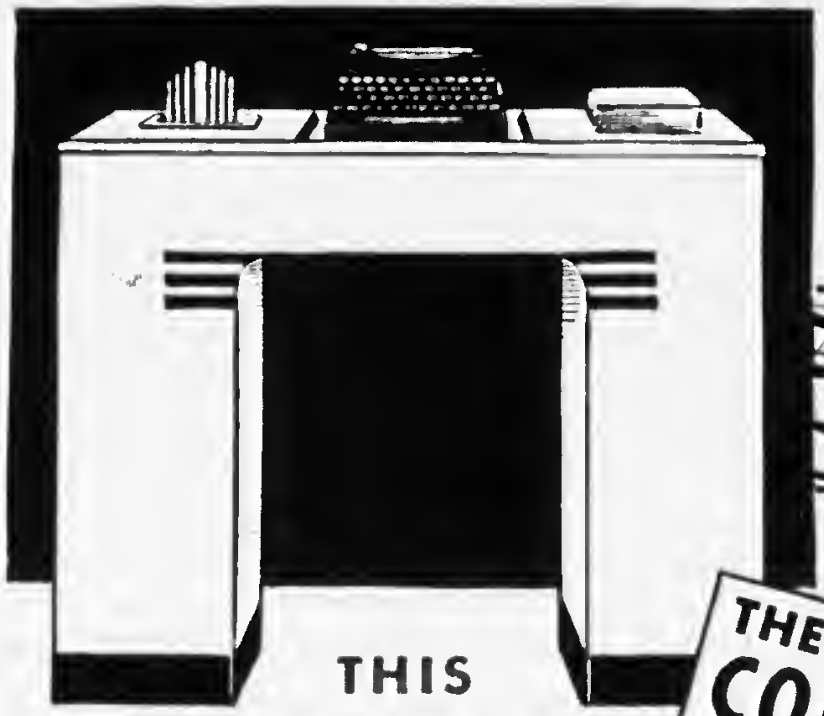
CHARLES ATLAS
Dept. 15011, 115 East 23rd Street,
New York, N. Y.

I want the proof that your system of **Dynamic Tension** will help make me a New Man give me a healthy, husky body and big muscle development. Send me your FREE book "Everlasting Health and Strength," and tell details about your 7-DAY Trial Offer.

Name.....
(Please print or write plainly)

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City..... State.....





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The Remington Deluxe Noiseless Portable is light in weight, easily carried about. With this offer Remington supplies a beautiful carrying case sturdily built of 3-ply wood bound with a special Dupont Fabric.



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